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OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

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The Right Honorable the Treasurer.

BY

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COMMONWEALTH STATISTICIAN.



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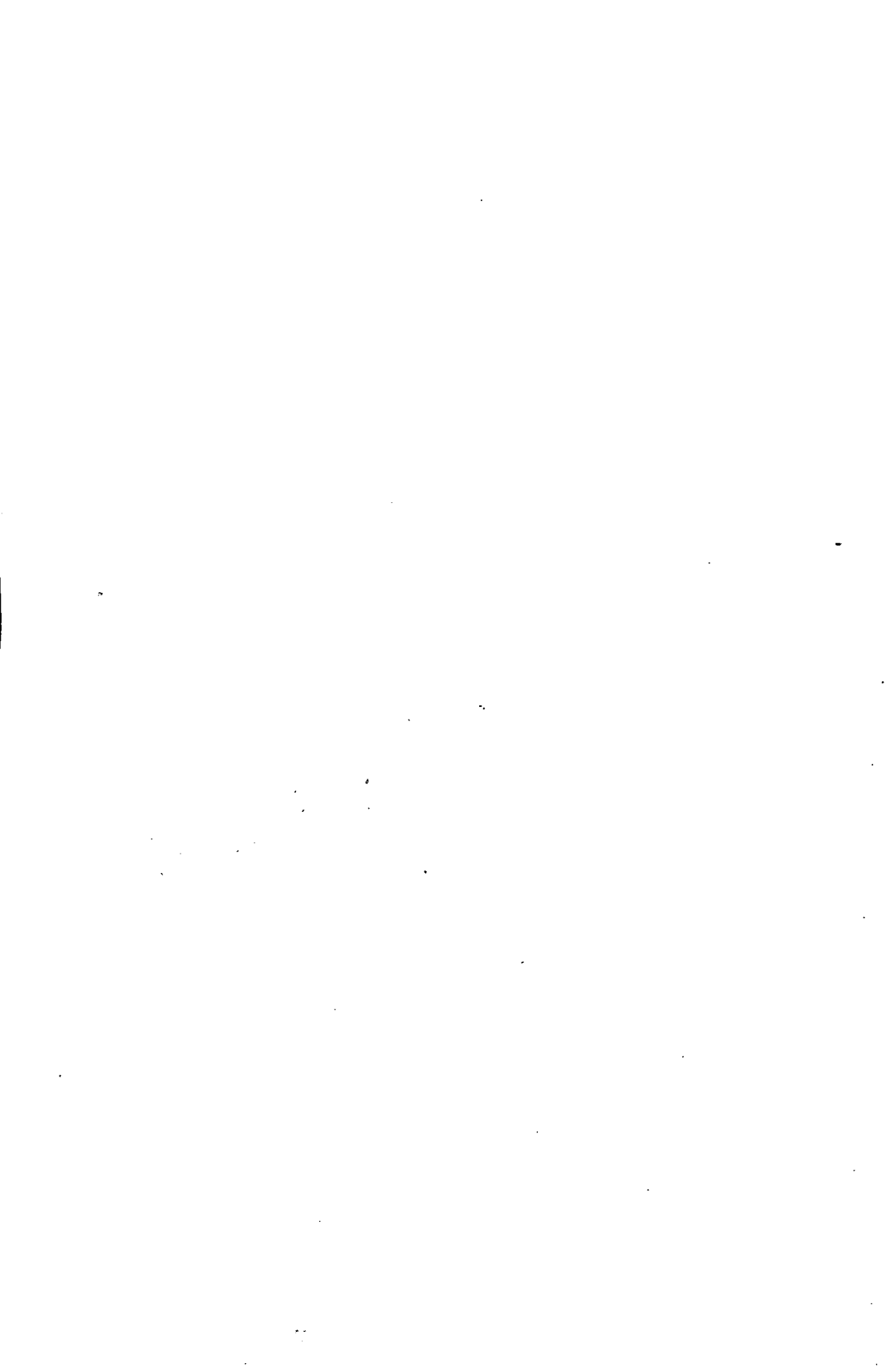
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OFFICIAL YEAR BOOK
OF THE
COMMONWEALTH OF AUSTRALIA.



PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the forty-sixth Official Year Book issued under the authority of the Commonwealth Government.

The Synopsis on pp. xi to xxxi following shows the general arrangement of the work. The special index (preceding the General Index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, owing to limitations of space, have been omitted or abbreviated in the present volume. Where, in the General Index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

Every endeavour has been made to meet the demand occasioned by the current economic and financial conditions for new information, or information expressed in new terms, concerning many branches of statistics, while a Diary of Principal Economic Events of the years 1956 to 1959 is inserted after the last chapter.

It is not proposed to refer to the whole of the new matter or to the new treatment of existing matter incorporated in the present volume, but attention may be drawn to the following:—

- Chapter V.—The Territories of Australia.—New Map showing location of Territories (p. 109).
- Chapter XII.—Labour, Wages, and Prices.—Revised and enlarged section dealing with Wage Margins, including 1959 cases (p. 446).
- Chapter XV.—Education.—Graph showing Students Enrolled and Teachers Employed (p. 593).
- Chapter XVI.—Public Justice.—New section dealing with Children's Courts (p. 633); revised section dealing with Divorce, etc. (p. 638).
- Chapter XX.—Private Finance.—Revised section dealing with Banking, setting out information on re-organization of Commonwealth Banks (pp. 763 *et seq.*).—New section dealing with Short Term Money Market (p. 805).
- Chapter XXIV.—Farmyard, Dairy, and Bee Products.—Revision of section dealing with Dairy Cattle and Dairy Products.
- Chapters XXV.—Forestry, XXVI.—Fisheries and XXVII.—Mineral Industry (pp. 1005, 1019, and 1037).—General revisions of order and presentation of data.
- Chapter XXX.—Miscellaneous.—Special article on Mount Stromlo Observatory (p. 1142).
- Appendix.—Basic Wage Inquiry, 1960.—Précis of judgment (p. 1220).
- Consumer Price Index—New Section (p. 1218).

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

In a publication of this size, a considerable time must necessarily elapse between the handling, both by author and printer, of the earlier and later parts of the work. In order to offset, to some extent, the consequent delay in presentation, the contents of this issue have already been published in separate parts as the successive chapters or groups of chapters were printed. Particulars of these parts, numbering eleven in all, are shown in the Price List of Printed Publications at the end of this volume. In a statistical publication, however, the time element does result in an unevenness in the periods to which the statistics relate. To overcome this difficulty, in part at least, an Appendix is provided in which, so far as space permits, later particulars, where available, of many statistical series appearing in preceding chapters have been inserted. The insertions have been restricted mainly to figures, as the inclusion of current textual matter is not generally practicable.

In a number of chapters, the figures in this issue have been brought forward two years from those in the previous issue. The Appendix to this issue contains information for various periods up to 1959-60.

It should be pointed out that for the most recent statistics the reader should refer to other publications issued by this Bureau, notably the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*. There are also numerous mimeographed statements issued from time to time on a wide range of subjects. Particulars of these are shown in Chapter XXXI.—Statistical Organization and Sources of Information.

My thanks are tendered to the Statisticians in each State, who have collected and compiled the data on which a great part of the information given in the *Official Year Book* is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments, and to others who have kindly, and often at considerable trouble, supplied information.

I also desire to express my keen appreciation of the valuable work performed by Mr. A. E. Callander, Editor of Publications, Mr. E. H. Harry, B.A., B.Com., and Mr. S. Burton, B.A., Assistant Editors, and the other officers of the Publications Division, and of the services rendered by the officers in charge of the several Branches of the Commonwealth Bureau of Census and Statistics upon whom has devolved the duty of revising the chapters relative to their respective Branches.

S. R. CARVER,
Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
Canberra, A.C.T., October, 1960.

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OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. Early Knowledge and Discovery of Australia.

1. **Introduction.**—The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Official Year Book No. 39 (*see* page 1) and earlier issues.

2. **Terra Australis.**—There was, apparently, an early Chaldean tradition as to the existence of an Austral land to the south of India and rumours to that effect found their way in the course of time to Europe. References to this *Terra Australis* are found in the works of Ælianus (A.D. 205–234), Manilius (probably a contemporary of Augustus or Tiberius Caesar), and Ptolemy (A.D. 107–161). Evidence pointing to knowledge of such a land appeared in maps and manuscripts of the Middle Ages and the fourteenth and fifteenth centuries but there is no definite evidence connecting this so-called *Terra Australis* with Australia.

Reference by Marco Polo (1254–1324) to a land called Locac and several indications on maps and globes in the fifteenth and sixteenth centuries have been assumed to relate to Australia, but little weight can now be attached to these suppositions. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria, although the oft-quoted passage in his *Descriptionis Ptolemaicæ Augmentum* describing the *Australis Terra* has been considered to have had its origin in the voyages through the Straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

3. **Discovery of Australia.**—(i) *The Spaniards.* Disregarding the suggestion, for which there is no evidence, that the Arabs had come to Australia long before the Portuguese, the Spaniards, or the Dutch, and apart from the possibility that the Portuguese may have discovered part of the Australian coast before 1542, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606, the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent, but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(ii) *The Dutch.* The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the islands of New Guinea. During March, 1606, the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years, there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642, Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage, in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

4. **Discoveries by the English.**—In the meantime, the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnēt*, a trading vessel whose crew had turned buccaneers. In 1699, he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

At the end of the seventeenth century, it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burden carrying about 85 persons, and accompanied by Sir Joseph Banks the botanist, Dr. Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned toward New Zealand, sighting that land on 7th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13th July, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Bass and Flinders in 1798.

§ 2. The Annexation of Australia.

1. **Annexation of the Eastern Part of Australia, 1770.**—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23rd August, 1770, that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S., in right of His Majesty King George the Third". Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1786, and amplified on 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet".

A full historical account of the period referred to may be found in the *Historical Records of New South Wales*, Vol. I., parts 1 and 2.

2. **Original Extent of New South Wales.**—The commission appointed Phillip “Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south”.

Although Captain Cook had taken possession of the North Island of New Zealand in November, 1769, and in January, 1770, of the South Island also, it is doubtful whether, at the time when Captain Phillip's commission was drawn up, New Zealand was considered as one of the “islands adjacent in the Pacific Ocean”. The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have become British territory unequivocally until 1840. In that year, on 29th January, Captain Hobson arrived at the Bay of Islands. On the following day, he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed.

3. **Extension of New South Wales Westward, 1825.**—On 17th February, 1824, Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On 16th July, 1825, the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. **Annexation of Western Australia, 1827.**—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9th November, 1826, landed at the Sound on 26th December following, and on 21st January, 1827, hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a “rich and romantic country”, urging its occupation for the purpose of settlement. He left for England in July, 1827, continuing his advocacy—*notwithstanding much discouragement*—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month, Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of “all that part of New Holland which is not included within the territory of New South Wales”. Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Exploration of Australia.

A summary of the more important facts relating to the exploration of Australia was embodied in this Chapter in issues of the Official Year Book up to and including No. 22.

§ 4. The Creation of the Several Colonies.

1. **New South Wales.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year, Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles.

Lord Howe Island, which is a dependency of New South Wales and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30' south, longitude 159° 5' east, about 436 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of Kentia palm seed. The land belongs to the Crown and is occupied rent-free on sufferance. Discovered in 1788, the Island was first settled by a small party of Maoris in 1853; afterwards a colony was settled from Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. The population was 278 at the Census of 30th June, 1954.

2. **Tasmania.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on 14th June of that year. The area of the colony was 26,215 square miles.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December, 1911, five members of the Australian National Antarctic Expedition landed on the island and remained there until 1915. On 3rd March, 1948, another party was landed to man a new station and this has since been maintained as a scientific base. The island is about 21 miles long and two miles wide.

3. **Western Australia.**—The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, though until 1831 the settlement on King George Sound remained under that jurisdiction.

4. **South Australia.**—On 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province", and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude, and between the 141st and 132nd meridians of east longitude. On 10th December, 1861, by the authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6th July, 1863, the Northern Territory, comprising 523,620 square miles, by letters patent, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, by letters patent of 16th November of that year, was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851, what was known as the "Port Phillip District" of New South Wales was constituted the colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia". The area of the new colony was 87,884 square miles, and its separate existence took effect from 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony

under the name of Queensland by letters patent dated 6th June, 1859, although separation from New South Wales was not completed until 10th December of the same year, upon the assumption of office of the first Governor. The territory comprised in the new colony was "so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean". The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each Local Government Area of Queensland, based on the most recent maps available, the Surveyor-General, in 1958, determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

§ 5. The Establishment of the Commonwealth of Australia.

1. General.—On 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—except in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed to that of "States".

2. Transfer of the Northern Territory to the Commonwealth.—On 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth, of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act 1907 (assented to on 14th May, 1908) and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

3. Transfer of the Australian Capital Territory to the Commonwealth.—On 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. Present Composition of the Commonwealth.—Following the revision of the area of Queensland, as mentioned in § 4 above, the total area of the Commonwealth of Australia has been determined as 2,971,081 square miles. The dates of creation and the areas of its component States and Territories are shown below:—

THE COMMONWEALTH OF AUSTRALIA: AREA, ETC., OF COMPONENT STATES AND TERRITORIES.

State or Territory.	Year of Formation into Separate Colony or Territory.	Present Area in Square Miles.	State or Territory.	Year of Formation into Separate Colony or Territory.	Present Area in Square Miles.
New South Wales	1786	309,433	Northern Territory	1863	523,620
Victoria.. ..	1851	87,884	Australian Capital Territory ..	1911	939
Queensland ..	1859	667,000			
South Australia ..	1834	380,070			
Western Australia	1829	975,920	Commonwealth of Australia ..	..	2,971,081
Tasmania ..	1825	26,215			

§ 6. The Constitutions of the States and of the Commonwealth.

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to and including No. 22.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: “An Act to constitute the Commonwealth of Australia”, as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, the Constitution Alteration (State Debts) 1928, and the Constitution Alteration (Social Services) 1946, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31st December, 1959.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT,
63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. “The Commonwealth” shall mean the Commonwealth of Australia as established under this Act.
 “The States” shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called “a State.”
 “Original States” shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
 - Part I.—General:
 - Part II.—The Senate:
 - Part III.—The House of Representatives:
 - Part IV.—Both Houses of the Parliament:
 - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament", or "The Parliament of the Commonwealth".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,† and the places of those of the second class at the expiration of [the sixth year] *six years*,† from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before*† the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July*† following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July*† preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it seems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified,

* The Parliament has otherwise provided, by means of the Representation Act 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18th May, 1948).

† As amended by Section 2 of the Constitution Alteration (Senate Elections) 1906. The words in *are brackets* have been repealed; amendments are shown in italics.

the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales ..	23	South Australia ..	6
Victoria ..	20	Tasmania ..	5
Queensland ..	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales ..	26	South Australia ..	7
Victoria ..	23	Western Australia ..	5
Queensland ..	9	Tasmania ..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.†

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918-1949, Section 39 (repealing an earlier provision made by the Commonwealth Franchise Act 1902). For present qualifications see Chapter III.—General Government.

† The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918-1949, Section 69. For present qualifications see Chapter III.—General Government.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

- (i) Trade and commerce with other countries, and among the States;
- (ii) Taxation; but so as not to discriminate between States or parts of States;
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth;
- (iv) Borrowing money on the public credit of the Commonwealth;
- (v) Postal, telegraphic, telephonic, and other like services;
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth;
- (vii) Lighthouses, lightships, beacons and buoys;
- (viii) Astronomical and meteorological observations;
- (ix) Quarantine;
- (x) Fisheries in Australian waters beyond territorial limits;
- (xi) Census and statistics;
- (xii) Currency, coinage, and legal tender;
- (xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money;
- (xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned;
- (xv) Weights and measures;
- (xvi) Bills of exchange and promissory notes;
- (xvii) Bankruptcy and insolvency;
- (xviii) Copyrights, patents of inventions and designs, and trade marks;
- (xix) Naturalization and aliens;
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth;
- (xxi) Marriage:

* The Parliamentary allowance was increased to £600 a year in 1907 (except in the cases of Ministers, the Presiding Officers of the two Houses, and the Chairman of Committees, whose allowances remained at £400 in addition to the emoluments of office), and to £1,000 a year in 1920 (Ministers, etc., £800). Under financial emergency legislation Parliamentary salaries and allowances were reduced generally, the lowest level reached in respect of the Parliamentary allowance being £750 a year in 1932. Subsequently there was a gradual restoration to former levels, the allowance reaching £1,000 a year again in 1938, when, also, the proviso for the reduced allowance to Ministers, &c., was removed. In 1947, the Parliamentary allowance was increased to £1,500 a year, in 1952 to £1,750 and in 1959 to £2,750. In 1920, additional allowances of £200 and £400 a year, respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, which were increased to £300 and £600, respectively, in 1947 and to £1,500 and £3,250, respectively, in 1959. In 1947, an additional allowance of £400 a year was granted to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognized political party which has not less than ten members in the House of Representatives and of which no member is a Minister and this was increased in 1959 to £750.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter III.—General Government.

- (xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants;
- (xxiii) Invalid and old-age pensions:
- (xxiiiA) **The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws:
- (xxvii) Immigration and emigration:
- (xxviii) The influx of criminals:
- (xxix) External affairs:
- (xxx) The relations of the Commonwealth with the islands of the Pacific:
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:
- (xxxiv) Railway construction and extension in any State with the consent of that State:
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

* Under Section 2 of the Constitution Alteration (Social Services) 1946, the Constitution was amended by the insertion of this paragraph.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:	| Lighthouses, lightships, beacons, and buoys:
Naval and military defence:	| Quarantine.

But the Departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

* The Ministers of State were increased to eight in 1915, to nine in 1917, to ten in 1935, to eleven in 1938, and to nineteen in 1941, a special war-time provision during the continuance in operation of the National Security Act which was extended in 1946 on the expiry of that Act. The number was increased to twenty in 1951 and to twenty-two in 1956. The annual appropriation for Ministers' salaries received in addition to their allowances as Members (*see* p. 12) was increased to £13,650 in 1915 and to £15,300 in 1917. Under financial emergency legislation, in addition to the reductions in Members' allowances the appropriation for Ministers was also reduced, in 1932 reaching the level of £10,710. The reductions were removed gradually, and finally in 1938 when the appropriation was £16,950. At the same time, an additional allowance of £1,500 a year was granted to the Prime Minister, and the proviso for the reduced Parliamentary allowance to Ministers was removed. In 1941, the annual appropriation for Ministers was increased, as a war-time provision, to £21,250. This was extended in 1946. In 1947, the appropriation was increased to £27,650, in 1951 to £29,000, in 1952 to £41,000, and in 1956 to £46,500.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.*

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council:
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.*

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court:
- (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:
- (iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

* The Judiciary Act 1903 provided for a Chief Justice and two other Justices. Subsequent amendments to the Act increased the number of other Justices to four and later six, and then reduced it to five. In 1946, the number was again increased to six. The Judiciary Act 1903 also provided for the payment of a salary of £3,500 a year to the Chief Justice and of £3,000 a year to each other Justice. In 1947, these salaries were increased respectively to £4,500 and £4,000 a year, in 1950 to £5,000 and £4,500 a year, and in 1955 to £8,000 and £6,500 a year.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court:
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two

years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way to the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

* Under Section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under Section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901; it read as follows:—

BY THE QUEEN.
A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales, Victoria, South Australia, Queensland, and Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

§ 7. The External Territories of Australia.

1. **Transfer of Norfolk Island.**—In 1856, Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony and finally by the passage of the Norfolk Island Act 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3' 3" S., longitude 167° 57' 5" E., and comprises an area of 8,528 acres.

2. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

3. **Territory of New Guinea.**—In 1919, it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25' E. The mandate was issued

by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dated from 9th May, 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved 13th December, 1946.

4. **Nauru.**—In 1919, the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude $0^{\circ} 32'$ south of the Equator and longitude $166^{\circ} 55'$ east of Greenwich, and comprises about 5,263 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and a supplementary agreement of 30th May, 1923, which gave the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. The administration under the mandate operated from 17th December, 1920, until 1st November, 1947, and so far the administrators have been appointed by the Commonwealth Government. As with the Territory of New Guinea, Nauru is now administered under a Trusteeship Agreement with the United Nations.

5. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council, dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands on 10th May, 1934. The Act authorized the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July, 1938, annexed the islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

6. **Australian Antarctic Territory.**—An Imperial Order in Council of 7th February, 1933, placed under Australian authority "all the islands and territories other than Adélie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude."

The Order came into force with a proclamation issued by the Governor-General on 24th August, 1936, after the Commonwealth Parliament had passed the Australian Antarctic Territory Acceptance Act on 13th June, 1933. The boundaries of Adélie Land were definitely fixed by a decree of 1st April, 1938, as latitude 60° S., longitude 136° E. and longitude 142° E.

7. **Territory of Heard and McDonald Islands.**—Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26th December, 1947.

8. **Territory of Cocos (Keeling) Islands.**—The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts Her Majesty, by Order in Council, specified 23rd November, 1955, as the date of transfer. From that date the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands.

9. **Territory of Christmas Island.**—The Christmas Island Act 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1st October, 1958, and an Official Representative was appointed to administer the Territory.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. **Geographical Position.**—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,971,081 square miles, the mainland alone containing about 2,944,866 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes $113^{\circ} 9' \text{ E.}$ and $153^{\circ} 39' \text{ E.}$, while its northern and southern limits are the parallels of latitude $10^{\circ} 41' \text{ S.}$ and $43^{\circ} 39' \text{ S.}$, or, excluding Tasmania, $39^{\circ} 8' \text{ S.}$ On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean. The extreme points are Steep Point on the west, Cape Byron on the East, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promotory, on the south.

(ii) *Tropical and Temperate Regions.* Of the total area of Australia, nearly 39 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is $23^{\circ} 30' \text{ S.}$, the areas within the tropical and temperate zones are approximately as follows:—

AUSTRALIA: AREAS OF TROPICAL AND TEMPERATE REGIONS.

(Square miles.)

Area.	N.S.W. (a)	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N. Terr.	Total.
Within Tropical Zone ..	310,372	87,884	360,642	380,070	364,000	26,215	426,320	1,150,962
„ Temperate Zone ..	310,372	87,884	306,358	380,070	611,920	26,215	97,300	1,820,119
Total Area ..	310,372	87,884	667,000	380,070	975,920	26,215	523,620	2,971,081

(a) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent. of Queensland lies within the tropical zone and 46 per cent. in the temperate zone; 37 per cent. of Western Australia is tropical and 63 per cent. temperate; while 81 per cent. of the Northern Territory is tropical and 19 per cent. temperate. All of the remaining States lie within the temperate zone. The tropical part of Australia thus comprises about 39 per cent. of the whole of the continent.

2. **Area of Australia compared with Areas of other Countries.**—The area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, nearly three-quarters of the whole area of Europe, and about 25 times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page.

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *circa* 1957.

('000 square miles.)

Country.	Area.	Country.	Area.
Continental Divisions—		Africa—<i>continued</i>.	
Europe (<i>a</i>)	1,903	Rhodesia and Nyasaland Federation	484
Asia (<i>a</i>)	10,480	Angola	481
U.S.S.R. (Europe and Asia)	8,650	Union of South Africa	472
Africa	11,700	Ethiopia and Eritrea	457
North and Central America and West Indies	9,359	Egypt	386
South America	6,870	Nigeria and Protectorate (<i>b</i>)	373
Oceania	3,300	Tanganyika Territory	362
<i>Total, excluding Arctic and Antarctic Conts. ..</i>	<i>52,262</i>	South-West Africa	318
Europe (<i>a</i>)—		Mozambique	302
France	213	Bechuanaland Protectorate	275
Spain (incl. possessions)	194	Madagascar	228
Sweden	174	Kenya Colony and Protectorate	225
Germany	138	Other	1,197
Finland	130	<i>Total</i>	<i>11,700</i>
Norway	125	North and Central America—	
Poland	120	Canada	3,851
Italy	116	United States of America (<i>c</i>)	3,609
Yugoslavia	99	Greenland	840
United Kingdom	94	Mexico	760
Romania	92	Nicaragua	57
Other	408	Cuba	44
<i>Total (<i>a</i>)</i>	<i>1,903</i>	Honduras	43
Asia (<i>a</i>)—		Other	155
China, Mainland	3,769	<i>Total</i>	<i>9,359</i>
India and Nepal	1,321	South America—	
Iran	629	Brazil	3,287
Saudi Arabia	618	Argentina	1,073
Mongolian People's Republic	591	Peru	496
Indonesia	576	Colombia (excl. of Panama)	440
Pakistan	365	Bolivia	424
Turkey	300	Venezuela	352
Burma	262	Chile	286
Afghanistan	251	Paraguay	157
Thailand	198	Ecuador	105
Iraq	172	Other	250
Other	1,428	<i>Total</i>	<i>6,870</i>
<i>Total (<i>a</i>)</i>	<i>10,480</i>	Oceania—	
U.S.S.R.		Commonwealth of Australia	2,971
Africa—		New Zealand	103
French West Africa	1,694	New Guinea (<i>d</i>)	93
French Equatorial Africa	974	Papua	91
Sudan	968	Other	42
Algeria	920	<i>Total</i>	<i>3,300</i>
Belgian Congo	905		
Libya	679		

(*a*) Excludes U.S.S.R., shown below.
(*d*) Australian Trust Territory.(*b*) Includes British Cameroons.(*c*) Includes Alaska.

The areas shown in the table are obtained from the *Demographic Yearbook*, 1958, published by the Statistical Office of the United Nations and the countries have been arranged in accordance with the continental groups used therein.

3. Areas of States and Territories, Coastal Configuration and Standard Times.—As already stated, Australia consists of six States and the Northern and Australian Capital Territories. Particulars of areas, coastline and standard times are shown in the following table:—

AUSTRALIA: AREAS OF STATES AND TERRITORIES, COASTLINE AND STANDARD TIMES.

State or Territory.	Area.	Proportion of Total Area.	Coastline.	Area per Mile of Coastline.	Standard Times.	
					Meridian Selected.	Ahead of G.M.T.
	Sq. miles.	%	Miles.	Sq. miles.		Hours.
New South Wales ..	309,433	10.42	(a) 700	(a) 443	150° E.	10
Victoria ..	87,884	2.96	680	129	150° E.	10
Queensland ..	667,000	22.45	3,000	222	150° E.	10
South Australia ..	380,070	12.79	1,540	247	142°30' E.	9½
Western Australia ..	975,920	32.85	4,350	224	120° E.	8
Northern Territory ..	523,620	17.62	1,040	503	142°30' E.	9½
Australian Capital Territory ..	939	0.03	..	..	150° E.	10
<i>Mainland</i> ..	<i>2,944,866</i>	<i>99.12</i>	<i>11,310</i>	<i>260</i>	..	..
Tasmania ..	26,215	0.88	900	29	150° E.	10
Australia ..	2,971,081	100.00	12,210	243	..	..

(a) Includes Australian Capital Territory.

There are few striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Official Year Book No. 1, an enumeration was given of the features of the coastline of Australia (*see pp. 60–68*).

Prior to 1895, the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each. In 1894 and 1895, after several conferences had been held, legislation was enacted by each of the colonies whereby the mean solar times of the meridians of east longitude 120° (Western Australia), 135° (South Australia and Northern Territory) and 150° (Queensland, New South Wales, Victoria and Tasmania) were adopted. In 1898, however, the South Australian legislature amended its earlier provision and adopted the mean solar time of the meridian 142° 30' E. longitude as the standard time for that colony (and the Northern Territory). For further information on this subject, *see* Official Year Book No. 39, page 65.

4. Geographical Features of Australia.—(i) *General*. The following description is only a broad summarization of the main physical characteristics of the Australian continent. For greater detail of particular geographical elements, earlier issues of the Official Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

(ii) *Orography of Australia*. (a) *General Description of the Surface*. Owing to the absence of any very high mountain chains, and to the great depression in the centre of Australia, the average elevation of the Australian continent above the level of the surrounding oceans is less than that of any of the other continents. Three-quarters of the land-mass lies between the 600 and 1,500 feet contours in the form of a huge plateau.

A section through the continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole eastern coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. From this plain, the Great Dividing Range, extending from the north of Queensland to the south of New South Wales, and thence sweeping westward through Victoria, rises, often abruptly, and frequently presents bold escarpments on its eastern face. The descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain.

The great central plain or plateau is the most distinctive feature of the Australian continent and its climatic peculiarities can probably be largely ascribed thereto.

(b) *Mountain Systems.* The main mountain feature of Australia is the Great Dividing Range, which runs along the whole eastern coast of the continent and can be traced over the islands of Torres Strait to New Guinea, while in the south, one branch sweeps westwards towards the boundary of Victoria and South Australia, and the other, the main branch, terminates in Tasmania.

This mountain system is at no place more than 250 miles from the eastern coastline and it approaches to less than 30 miles. On the whole, it is much closer to the coast in both New South Wales and Victoria than it is in Queensland, the corresponding average distances being about 70, 65 and 130 miles respectively. There is no connexion between the mountains of the eastern and other States of Australia.

The mountains of Australia are relatively low. Thus, in Queensland, the Great Dividing Range reaches a height above sea-level of less than 5,500 feet, the highest peak being Mount Bartle Frere. Mount Kosciusko, in New South Wales, is only about 7,300 feet, and Mount Bogong, in Victoria, about 6,500 feet high. In South Australia and Western Australia, heights of three to five thousand feet are attained. In Tasmania, the greatest height is only a little more than 5,000 feet. The fact that there are no high mountains in Australia is also of considerable importance in considering the climate of Australia.

It may be of interest to observe that at one time Tasmania was probably connected with the mainland. As the Great Dividing Range can, in the north, be traced from Cape York across Torres Strait to New Guinea, so its main axis can be similarly followed across the shallow waters of Bass Strait and its islands from Wilson's Promontory to Tasmania, which may be said to be completely occupied by ramifications of the chain. The central part of the island is occupied by an elevated plateau, roughly triangular in shape, and presenting bold fronts to the east, west and north. This does not extend in any direction more than about 60 miles. The plateau rests upon a more extensive tableland, the contour of which closely follows the coastline, and occasionally broadens out into low-lying tracts not much above sea-level. The extreme south of the island is rugged in character.

(iii) *Hydrology of Australia.* (a) *Rainfall.* On the whole, Australia is a country with a limited rainfall. This is immediately evident on studying its river systems, its lakes, and its artesian areas. Its one large river system is that of the Murray and Darling Rivers, of which the former stream is the larger and more important. Many of the rivers of the interior run only after heavy rains. Depending almost entirely on rainfall, a consequence of the absence of high mountains, they drain large areas with widely varying relation as between rainfall and flow. Thus it has been estimated that not more than 10 per cent. of the rainfall on the catchment area of the Darling River above Bourke (New South Wales) discharges itself past that town. The rate of fall is often very slight.

(b) *Rivers.* The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall; and those of the central plains with very slight fall. Of the former, not many are navigable for any distance from their mouths and bars make many of them difficult of access or inaccessible from the sea.

The two longest rivers of the northern part of the eastern coast are the Burdekin, discharging into Upstart Bay, with a catchment area of 53,500 square miles, and the Fitzroy, which reaches the sea at Keppel Bay and drains about 55,600 square miles.

The Hunter is the largest coastal river of New South Wales, draining about 11,000 square miles before it reaches the sea at Newcastle. The Murray River, with its great tributary the Darling, drains a considerable part of Queensland, the major part of New South Wales and a large part of Victoria. It debouches into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 1,600 miles, 400 being in South Australia and 1,200 constituting the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. In good seasons, the river is navigable for a considerable proportion of its length.

The rivers of the north-west coast of Australia (Western Australia) are of considerable size, e.g., the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale and Ord. So also are those in the Northern Territory, e.g., the Victoria and Daly. The former of these, estimated to drain 90,000 square miles, is said to be navigable for 50 miles.

The rivers on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell, are also of considerable size.

Owing to the small amount of fall of many of the interior rivers, they may flood hundreds of miles of country in wet seasons, while in dry seasons they form a mere succession of waterholes or are entirely dry. It is this fact that explains the apparently conflicting reports of the early explorers, one regarding the interior as an inland sea, and another as a desert.

The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the territory.

(c) *Lakes.* The "lakes" of Australia may be divided into three classes, true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse.

The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre and Frome, are of considerable extent.

(d) *Artesian Areas.* A considerable tract of the plain country of New South Wales and Queensland carries a water-bearing stratum, usually at a great depth. A large number of artesian bores have been put down, from which there is a considerable flow. These are of great value and render usable large areas which otherwise would be difficult to occupy even for pastoral purposes.

For further information on this subject, see Chapter VIII.—Water Conservation and Irrigation.

5. *Fauna, Flora, Geology and Seismology of Australia.*—Special articles dealing with these features have appeared in previous issues of the Official Year Book, but limits of space preclude their repetition in each volume. The nature and location of these articles can be readily ascertained from the special index preceding the general index at the end of this volume.

§ 2. Climate and Meteorology of Australia,

NOTE.—This Section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau.

1. *Introductory.*—Previous issues of the Official Year Book, notably No. 3, pages 79–83, and No. 4, pages 84 and 87, contained outlines of the history of Australian meteorology and the creation and organization of the Commonwealth Bureau of Meteorology. Official Year Book No. 38, pages 30–32, contained paragraphs devoted to (i) Organization of the Meteorological Service; (ii) Meteorological Publications; (iii) Equipment; and (iv) Meteorological Divisions.

By reasons of its insular geographical position and the absence of striking physical features, whether in marine gulfs or in important mountains, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is generally more temperate.

The average elevation of the surface of the land is low, probably close to 900 feet above the sea. The altitudes range up to a little more than 7,300 feet, hence the Australian climate displays a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the Great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are also large areas which are treeless, and here the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character.

2. *Temperature.*—(i) *Effective Temperature.* When a meteorologist speaks of temperature, he means the temperature of the air indicated by a thermometer sheltered from precipitation, from direct rays of the sun and from radiation of heat from the ground

and neighbouring objects, yet freely exposed to the circulation of the air. In other words, he means temperature measured under conditions standardized as nearly as possible in a Stevenson Screen, which is the standard housing for meteorological thermometers.

This shade temperature as measured by a "dry bulb" thermometer shows only the actual temperature experienced by dry inorganic substances, not the *sensible* temperatures felt by organic bodies. In the case of human beings, *sensible* temperature is affected by the rate of conduction of heat to or from the body by moving air and also by the rate of cooling due to evaporation from the skin and respiratory passages. The wind and humidity therefore determine the *sensible* temperature.

The humidity (relative humidity) is determined from the readings of the dry and wet bulb thermometers. Of late years, however, with increasing interest in human comfort in tropical climates, another term, *effective* temperature, has come into use. It may be defined as "the temperature of a still, saturated atmosphere which would on the average produce the same feeling of warmth or cold as the atmosphere in question".*

The 80° F. isotherm is confined to a very narrow tract of country on the north-west coast of Western Australia. The 75° F. isotherm extends, broadly, from Onslow on the north-west coast of Western Australia to Daly Waters to Camooweal to Moreton in Cape York Peninsula following in a general way the coastline of Northern Australia but from 100 to 300 miles inland.

Later investigations have established "comfort zones"† bounded by limits of effective temperature within which people will feel comfortable. American research workers have determined the following figures‡:—

COMFORT ZONES: EFFECTIVE TEMPERATURES.

Season.			No subjects feel comfortable below—	Fifty per cent. of subjects feel comfortable between—	No subjects feel comfortable above—
Winter..	..	..	60° F.	63° and 71° F.	74° F.
Summer	..	..	64° F.	66° and 75° F.	79° F.

Queensland investigators§ in recent years have divided some towns of Queensland into three classes on the basis of deviation from comfort:—

Class 1 (Sub-tropics).—Quite suitable for Caucasian habitation—Rockhampton, Bundaberg, Brisbane, Longreach, Charleville.

Class 2 (Marginal tropics).—Suitable for Caucasian habitation, but requires adaptation in summer—Mackay, Townsville.

Class 3 (Tropics).—(a) Permissible for Caucasian habitation but requires selection and marked adaptation—Cardwell, Cairns, Cloncurry. (b) Not suitable for continuous Caucasian habitation—Cape York, Burketown.

These results of recent years bear out investigations made previously in Australia|| in which the atmospheric vapour pressure was used as a measure of comfort, its value for this purpose being that it has equal effect in both indoor and outdoor climates. The limits of comfort range from 0.2 to 0.5 inch of vapour pressure. After drawing isopleths for effective temperature (not corrected for altitude), mean vapour pressure reduced to a logarithmic scale, and mean wet bulb temperature, it is found that there is close agreement in defining zones of relative discomfort.

(ii) *Seasons.* The Australian seasons are:—Summer, December to February; autumn, March to May; winter, June to August; spring, September to November. In most parts of Australia, January is the hottest month, but in Tasmania and southern Victoria, February is the hottest; in the tropical north, probably because the cooling "monsoon" rains occur in late summer, December is the hottest month, and at Darwin, November.

On a rainfall basis, in the tropical north the year is divisible into "wet" and "dry" seasons, but on the basis of temperatures and physical comfort the "dry" season can be further sub-divided into two parts—"cool dry" and "warm dusty".¶

(a) "*Cool dry*" Season. From May to August. The average maximum temperature ranges from 80° to 85° F., the relative humidity is low and in inland areas cold nights are experienced when the temperature drops to 40° F. The skies generally are cloudless, but in about one year in three during June or July one to two inches of rain fall.

* Houghton, F. C., Teague, W. W. and Miller, W. E. (1926) Amer. Soc. Heat Vent. Engrs. † Yaglou, C. P. (1926) J. Industr. Hyg. ‡ Yaglou, C. P. (1927) Ibid. § Lee, D. H. K. Trans. Roy. Soc. Trop. Med. and Hyg. (1940) Vol. XXXII. ¶ Barkley, H. Zones of Relative Physical Comfort in Australia, Met. Bull. 20, 1934. || Maze, W. H. Austr. Geog., June, 1945. Settlement in E. Kimberleys.

(b) "*Warm dusty*" Season. From the end of August, temperatures rise and reach a maximum in October or the beginning of November. Temperatures of over 120°F. have been recorded.

(c) "*Wet*" Season. After the first of the heavy storms, the maximum temperatures fall but still remain high with high relative humidity. At Wyndham during January, 1944, the minimum temperature did not drop below 75°F. for fourteen consecutive days. A maximum of over 100°F. was recorded on each rainless day.

In Central and Northern Australia, during the hottest months, the average temperatures range from 80° to 85° F., whereas in Southern Australia they vary from 65° to 70° F. (see maps pp. 33, 34).

Throughout Australia, the coldest month is July, when only a very narrow strip of the northern sea-board has an average temperature as high as 75° F. Over the southern half of the continent, July temperatures range from 55° to 45° F. at elevations below 1,500 feet and fall as low as 35° on the Australian Alps (see maps pp. 35, 36). Here the temperature seldom, if ever, reaches 100° F. even in the hottest of seasons. Hotham Heights (6,100 feet above Mean Sea Level) recorded the highest maximum of 82.0° F. on 20th January, 1935. In winter, readings slightly below zero are occasionally recorded on the extreme heights.

Tasmania, as a whole, enjoys a moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° F. in the eastern part of the State.

(iii) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° F. extends in South America and South Africa as far south as latitude 33° S., while in Australia it reaches only as far south as latitude 30° S., thus showing that, on the whole, Australia has, latitude for latitude, a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States of America the 70° F. isotherm extends in several of the western States as far north as latitude 41° N. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing afterwards, however, along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a mean annual temperature higher than 70° F.

The extreme range of temperature is less than 100° F. over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° F. over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° F. in some localities.

Along the northern shores of Australia, the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest month is only 8.4° F., and the extreme readings, or the highest maximum on record and the lowest minimum, show a difference of under 50° F.

The highest temperature recorded in Australia was 127.5° F. at Cloncurry on 16th January, 1889. The world's highest (136° F.) was recorded at Azizia (Tripoli) on 13th August, 1922. The lowest temperature ever recorded in Australia was -8° F. at Charlotte Pass on 14th June, 1945, and again on 22nd July, 1947, as contrasted with the world's lowest recorded temperature, apart from the polar regions, of -90° F. at Verkhoyansk (Siberia) on 5th and 7th February, 1892.

A comparison of the mean temperatures and the range from the extreme maximum to the extreme minimum temperatures (in whole degrees) of the capital cities of Australia with those of the main cities of some other countries is presented in tabular form in Official Year Book No. 38, page 42.

(iv) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that in Australia, as in other continents, the range increases, within certain limits, with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° F. in the shade. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds 100° F. continuously for days and weeks. The longest recorded period was 160 days from 31st October, 1923, to 7th April, 1924.

The area affected and the period of duration of the longest heat waves in Australia are shown in the map and diagram on page 37.

(v) *Tabulated Data for Selected Climatological Stations in Australia.* Tables showing normal mean temperature, extreme temperatures and normal rainfall for each month for

selected climatological stations in each State and the Northern Territory appear in Official Year Book No. 40, pages 16–23, and similar data for other selected stations in the Commonwealth in Official Year Book No. 39, pages 41–48. Pages 53–60 of this issue contain this information in respect of Canberra, Darwin and the six State capitals.

(vi) *Frosts*.* The Observer's Handbook of the Meteorological Office, London, gives the following definition:—"Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.) and a 'ground frost' is regarded as having occurred when the thermometer on the grass has fallen to 30.4° F. or below".

In Australia, this definition is adopted for stations equipped with terrestrial minimum thermometers. However, these are few in number, so although many rainfall observers record "hoar frost" when seen, for statistical purposes a screen temperature of 36° F. is taken as indicating light frosts at ground level. For heavy frosts, a screen temperature of 32° F. is taken.

In America, a "killing" frost is defined as a frost "that is generally destructive of vegetation". A "black frost" is the phenomenon arising out of a combination of low temperature and low humidity causing rupturing of plant cells by expansion, when freezing takes place, of the water which they contain, though frost crystals are not formed on the ground.

The parts of Australia most subject to low temperature are the eastern highlands from about Omeo in Victoria northward to Cambooya and Bybera in Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. In Tasmania, districts on the Central Plateau are subject to such conditions for three to six months of the year. Minimum temperatures of 32° F. are comparatively infrequent in Western Australia except in parts of the south and south-west. In South Australia, the Yongala district is much more subject to such temperatures than other parts of the State. Much of the south-east of Queensland has a higher frequency of such readings than South Australia. Generally speaking, the frequency is controlled mainly by altitude, latitude and, to a lesser degree, by proximity to the sea.

Frosts may occur within a few miles of the coastline over the whole continent, except in the Northern Territory and a considerable area of Northern Queensland. Regions subject to frost in all months of the year comprise portions of the tablelands of New South Wales, the Eastern Highlands and parts of the Central Divide and Western District in Victoria, practically the whole of Tasmania and a small area in the south-west of Western Australia.

A map showing the average annual number of frost-free days (i.e., days on which the temperature does not fall below 36° F.) appears on page 39.

Over most of the interior of the continent, and on the Highlands in Queensland as far north as the Atherton Plateau, frosts appear in April and end in September, but they are infrequent in these months. Minimum temperatures of 32° F. are experienced in most of the sub-tropical interior in June and July.

3. Humidity.—After temperature, humidity is the most important element of climate, particularly as regards its effects on human comfort, rainfall supply and conservation and related problems.

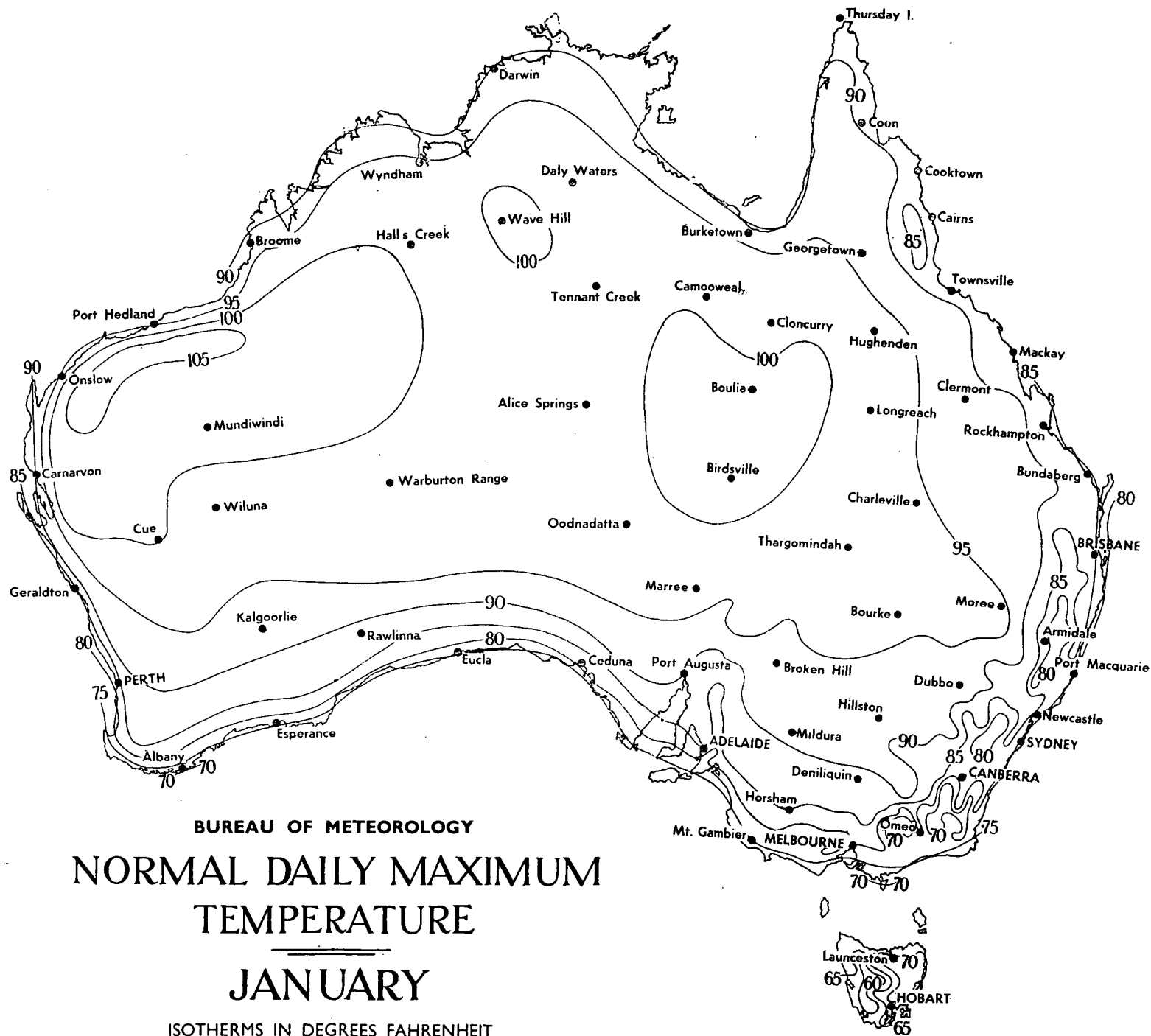
"Vapour pressure" is the pressure exerted by the water vapour in the atmosphere. At any given temperature there is a definite upper limit to the amount of water that can exist as vapour in the atmosphere. When this limit is reached, the air is said to be saturated and the pressure of the water vapour is equal to the "saturation vapour pressure".

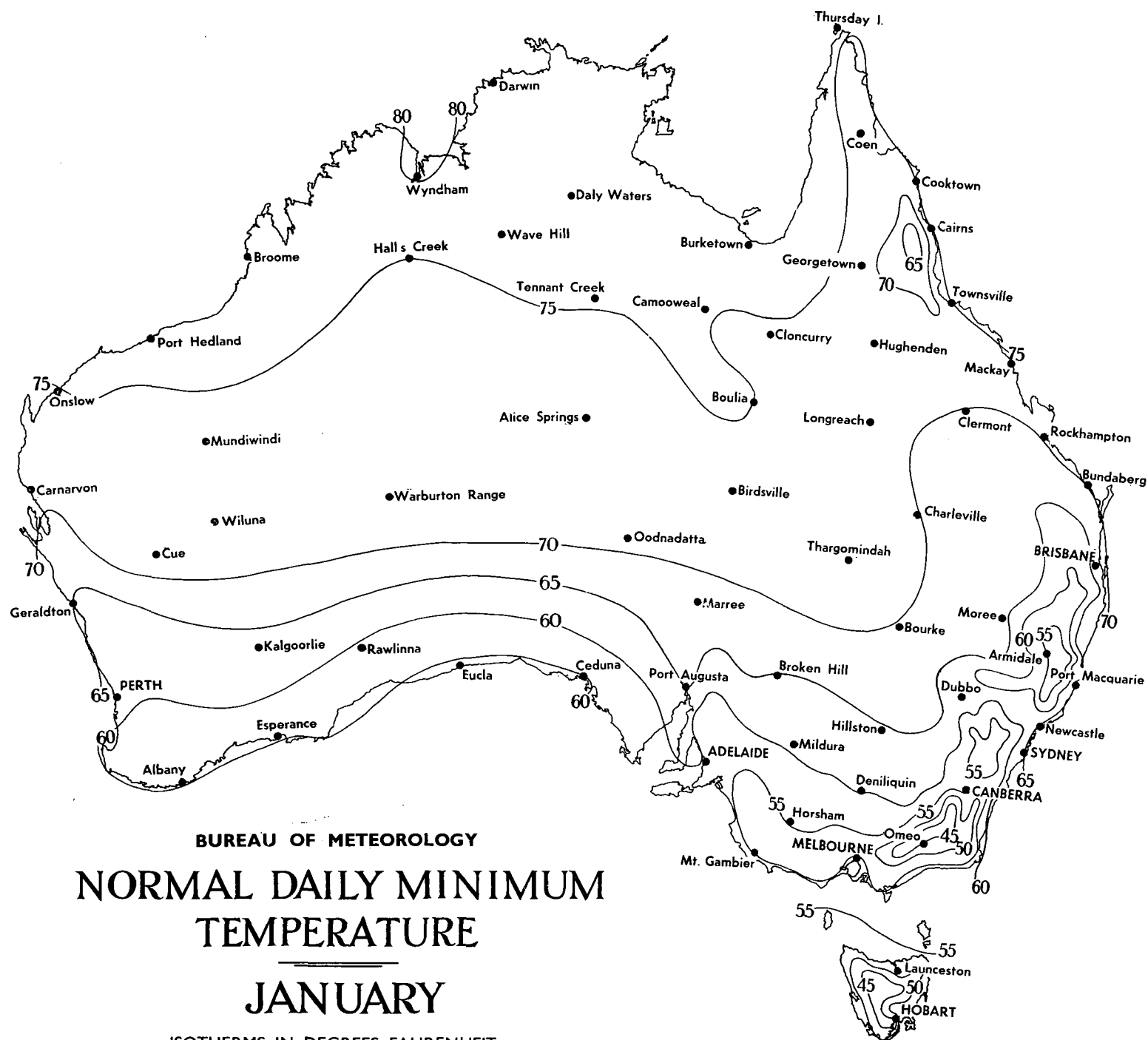
In this publication, the humidity of the air has been expressed by the relative humidity, which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., are shown in the tables of climatological data for the capital cities (see pp. 53–60). The mean monthly vapour pressure has also been added to these tables.

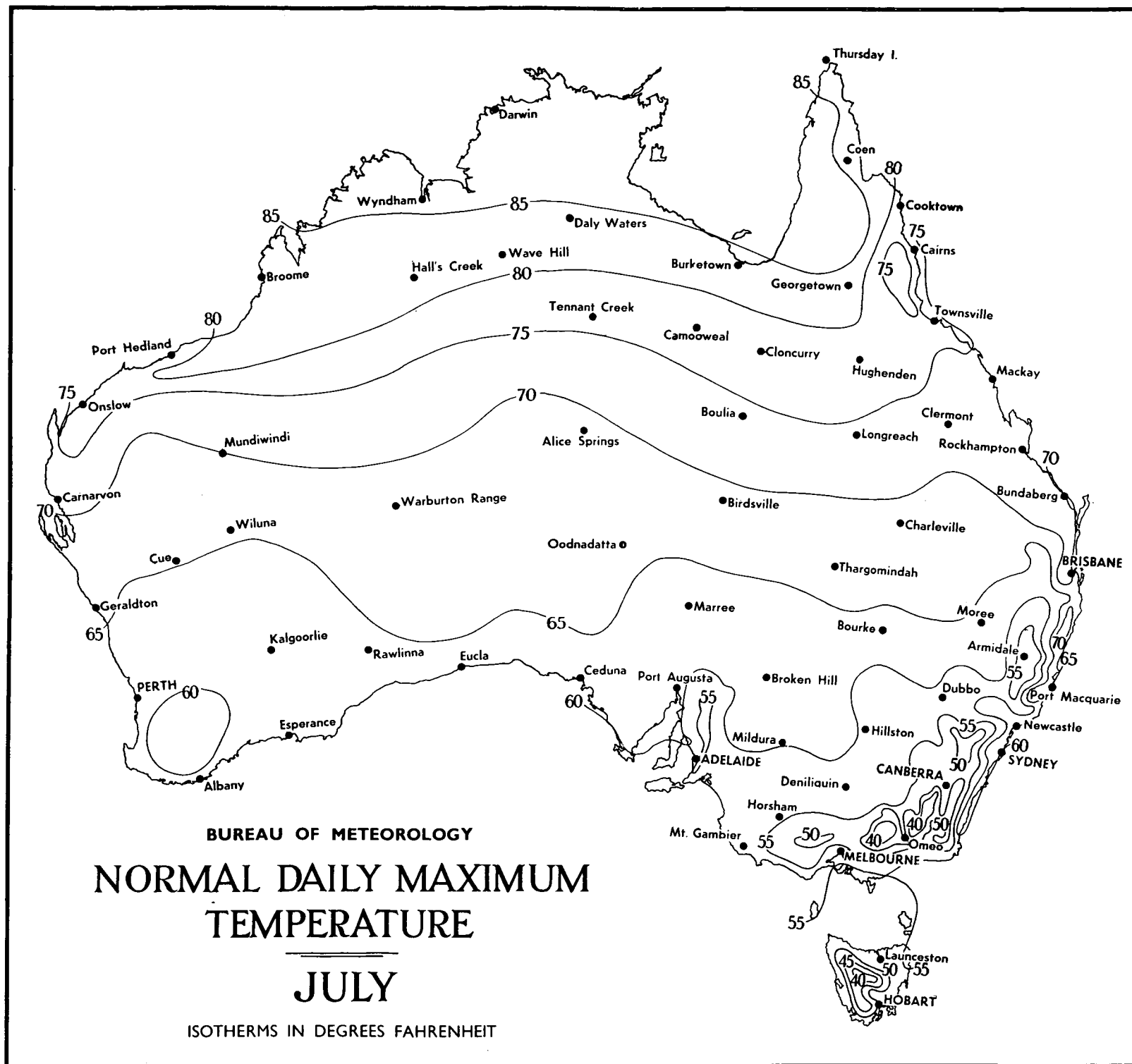
The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities, consisting as they do of the extremes for each month, do not show the normal annual fluctuation which would be approximately midway between the extremes.

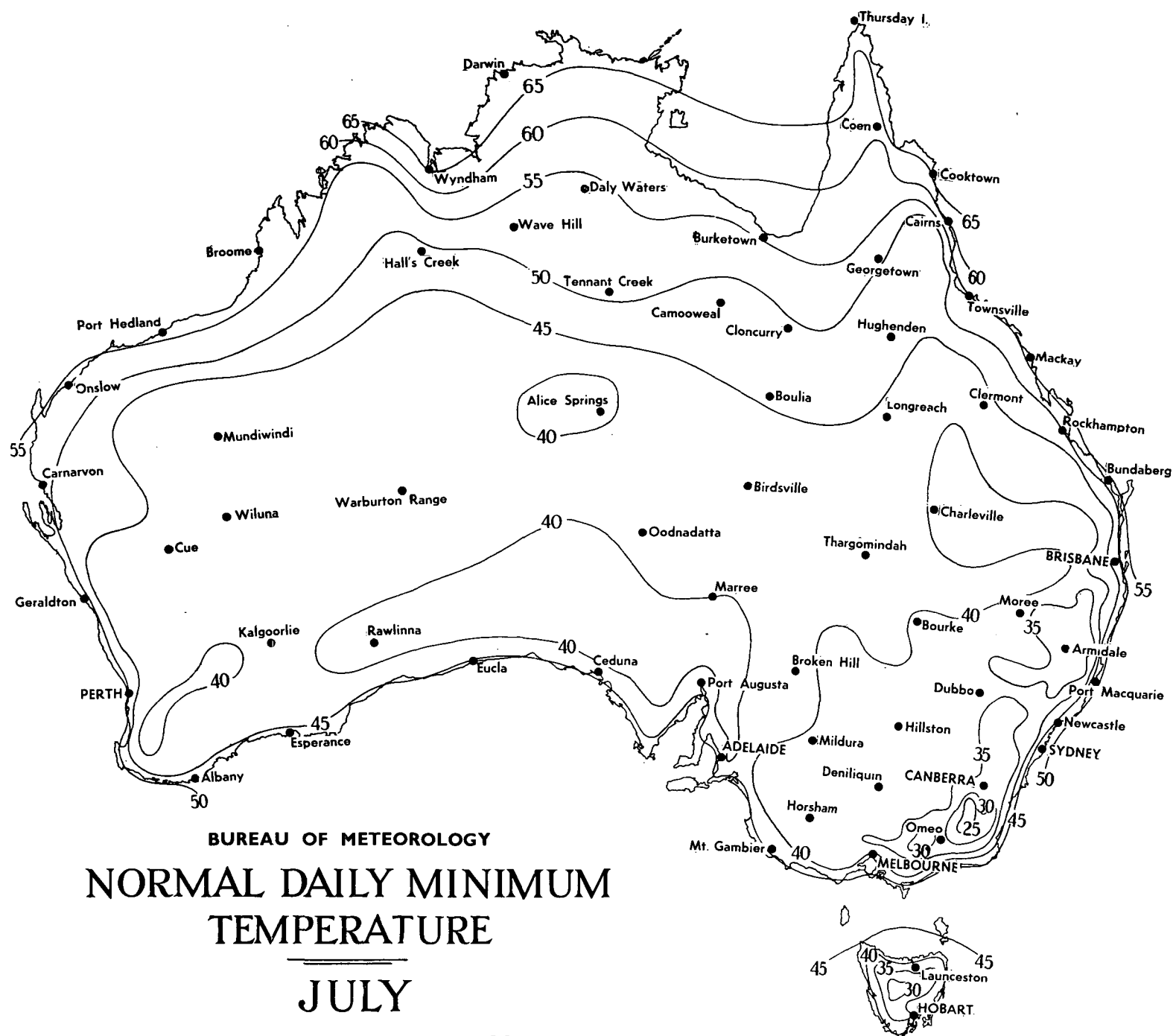
The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity at 9 a.m. diminishes in the order, Melbourne, Sydney, Darwin, Brisbane, Canberra, Hobart, Perth, Adelaide and Alice Springs.

* Foley, J. C. Frost in the Australian Region (Bull. 32, 1945).

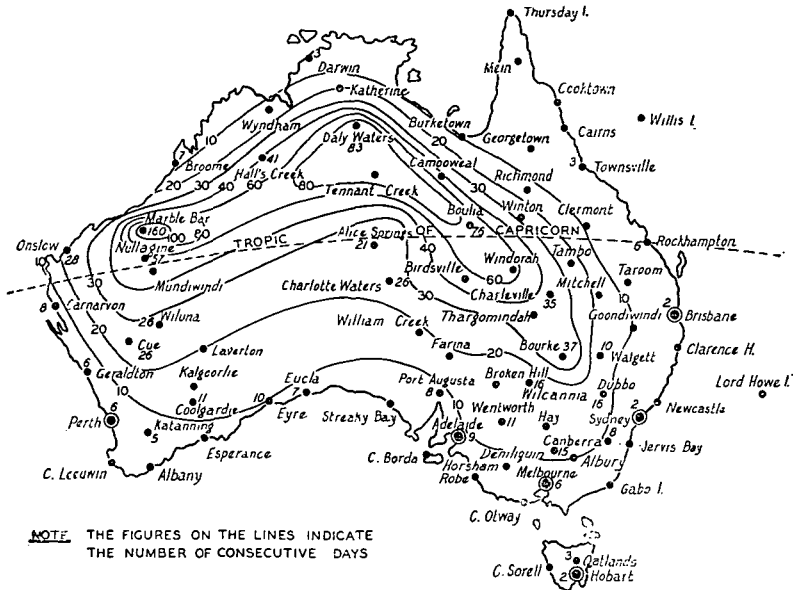






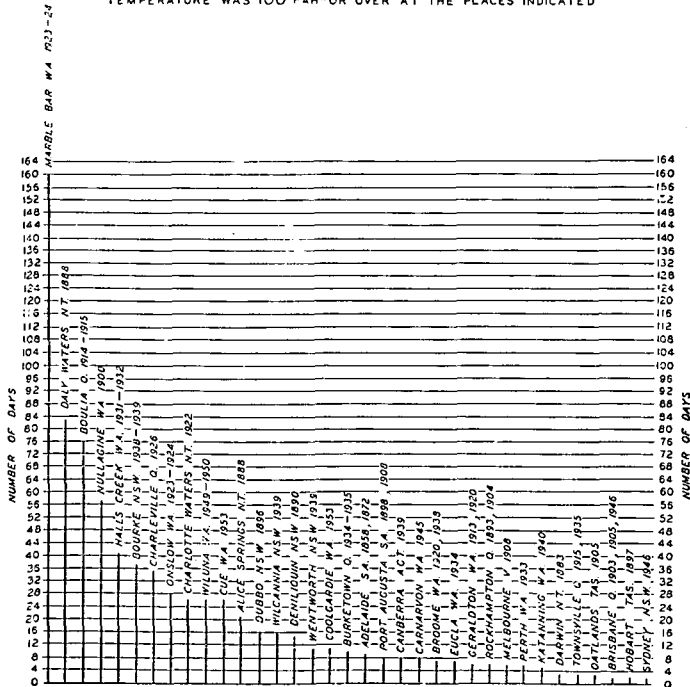


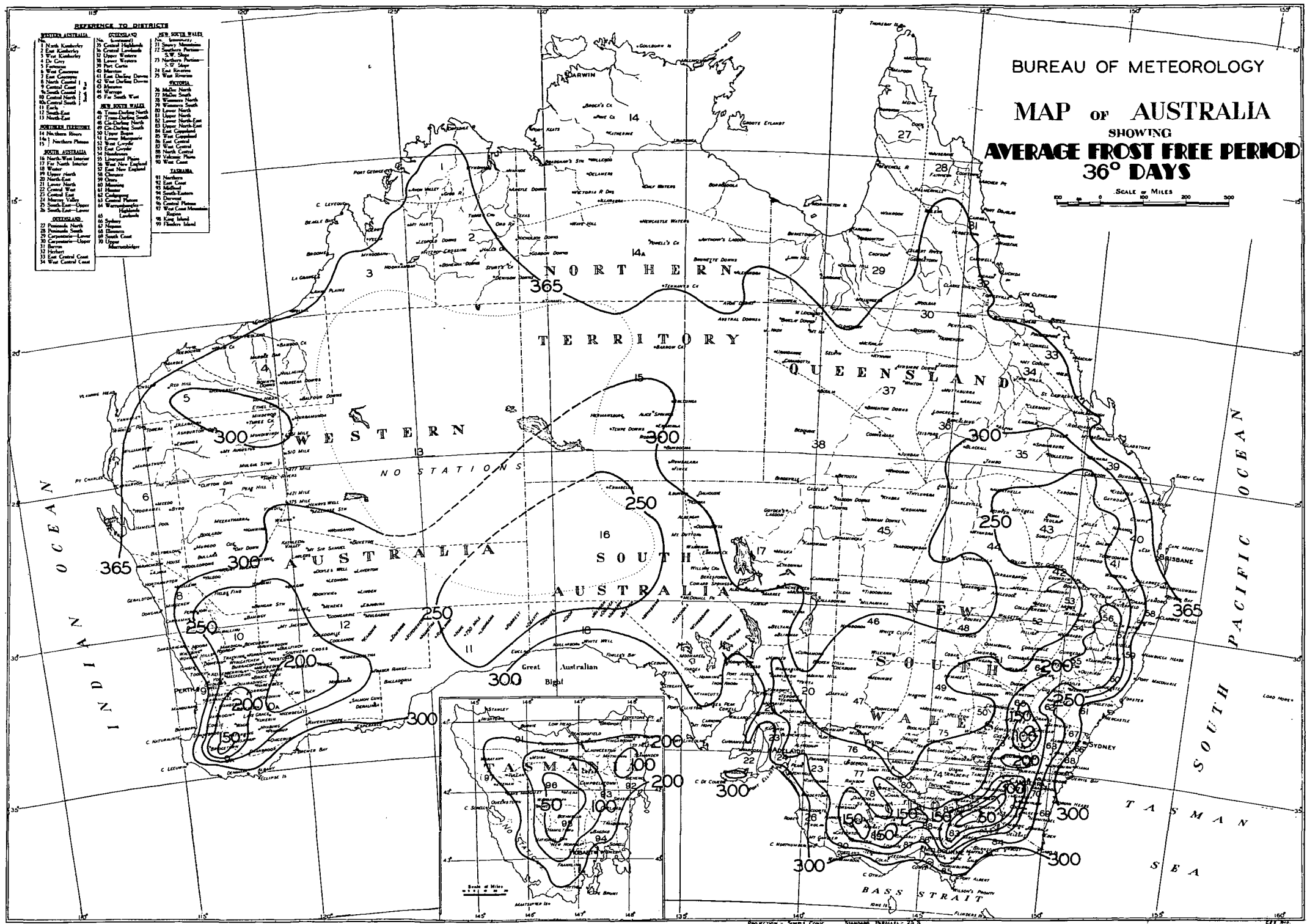
AREA AFFECTED AND PERIOD OF DURATION OF THE LONGEST HEAT WAVES WHEN THE MAXIMUM TEMPERATURE FOR CONSECUTIVE 24 HOURS REACHED OR EXCEEDED 100°F.

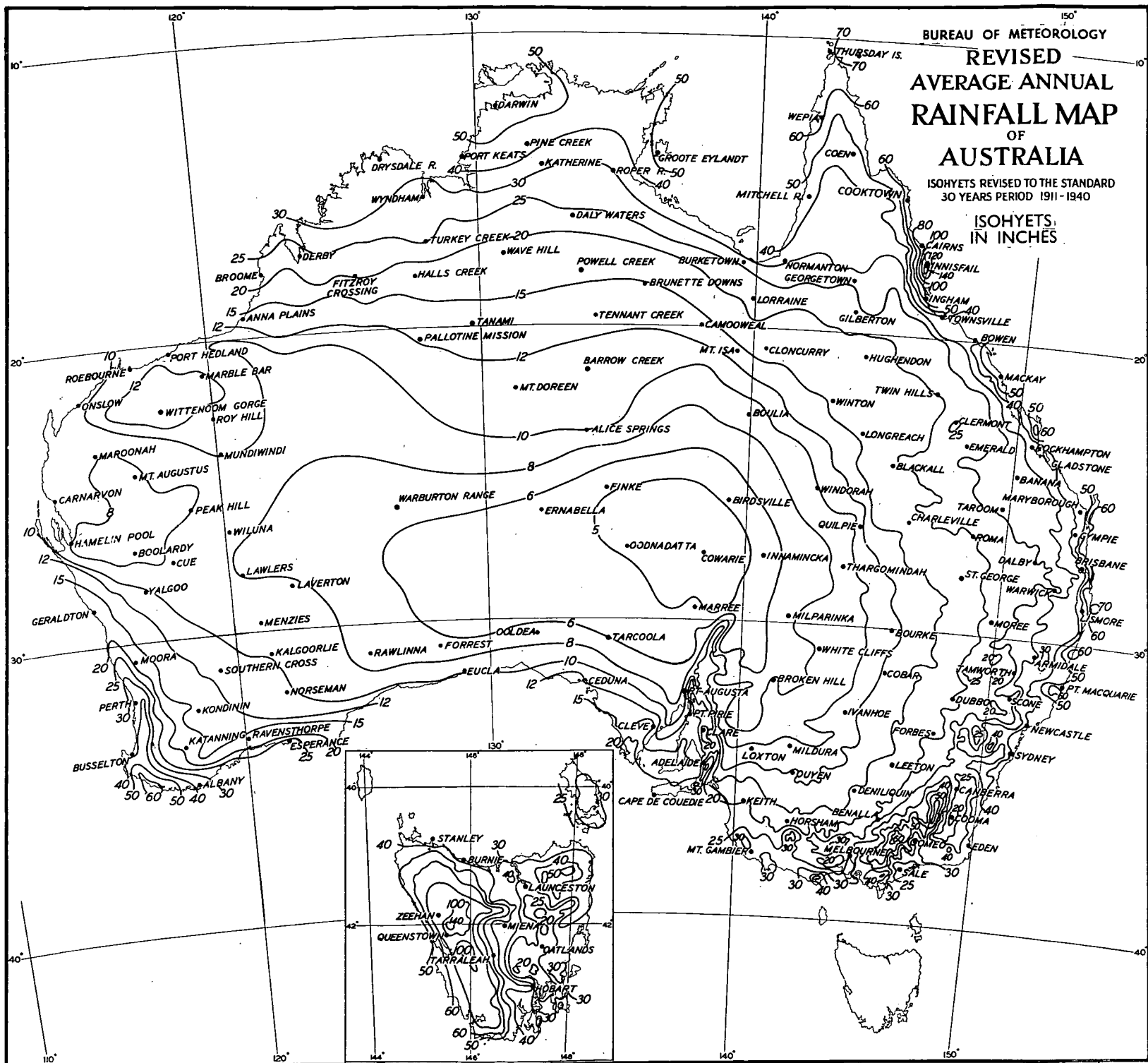


NOTE THE FIGURES ON THE LINES INDICATE THE NUMBER OF CONSECUTIVE DAYS

GREATEST NUMBER OF CONSECUTIVE DAYS ON WHICH THE SHADE TEMPERATURE WAS 100°F OR OVER AT THE PLACES INDICATED







COMMONWEALTH OF AUSTRALIA.
BUREAU OF METEOROLOGY MELBOURNE.
MONTHLY DISTRIBUTION OF RAINFALL
OVER AUSTRALIA.

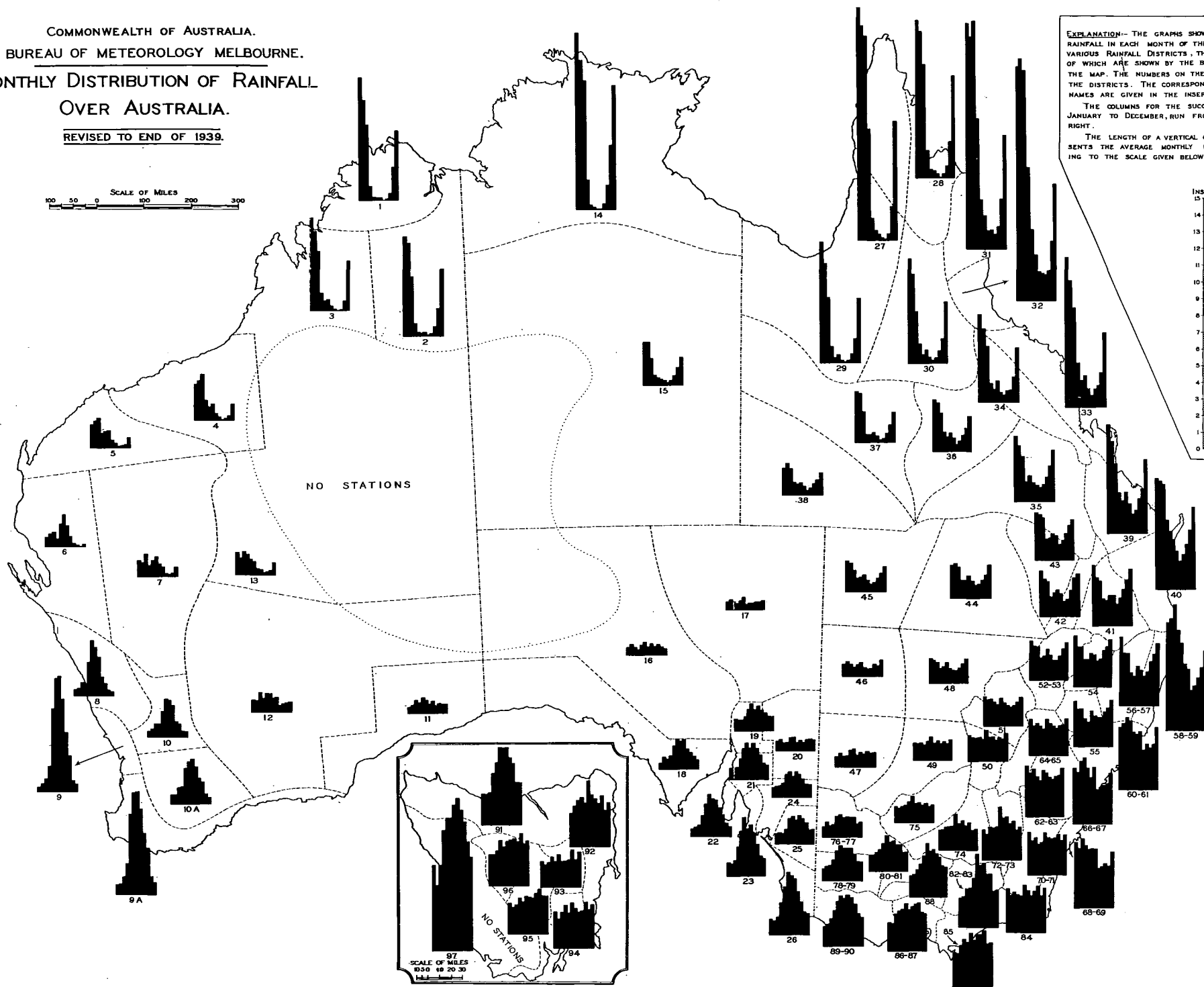
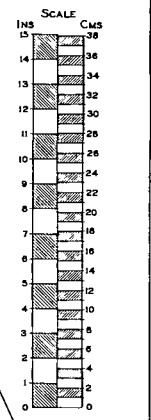
REVISED TO END OF 1939.

SCALE OF MILES
100 50 0 100 200 300

EXPLANATION:— THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS. THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 89.

THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW.



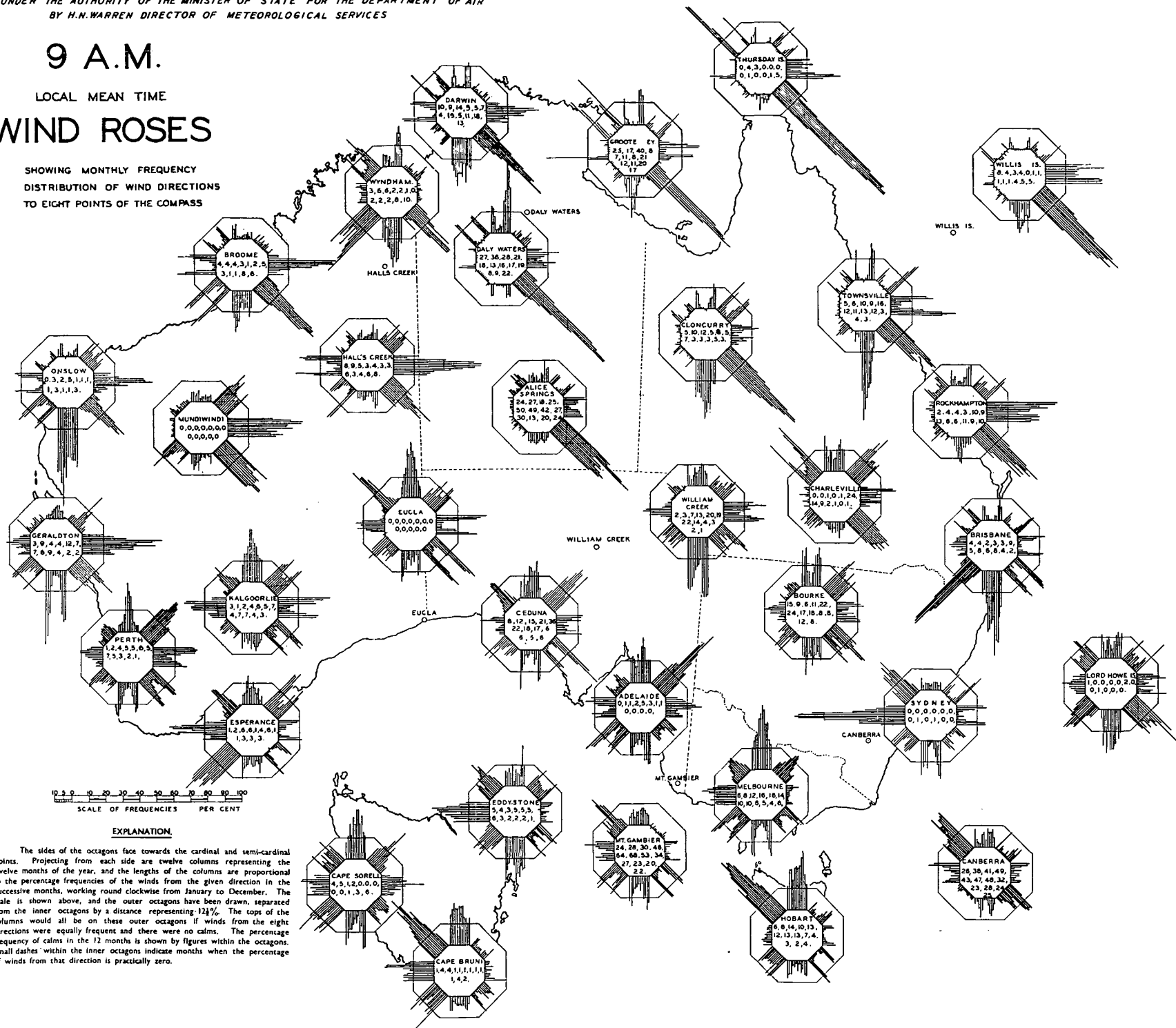
ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE DEPARTMENT OF AIR
BY H.N. WARREN DIRECTOR OF METEOROLOGICAL SERVICES

9 A.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS



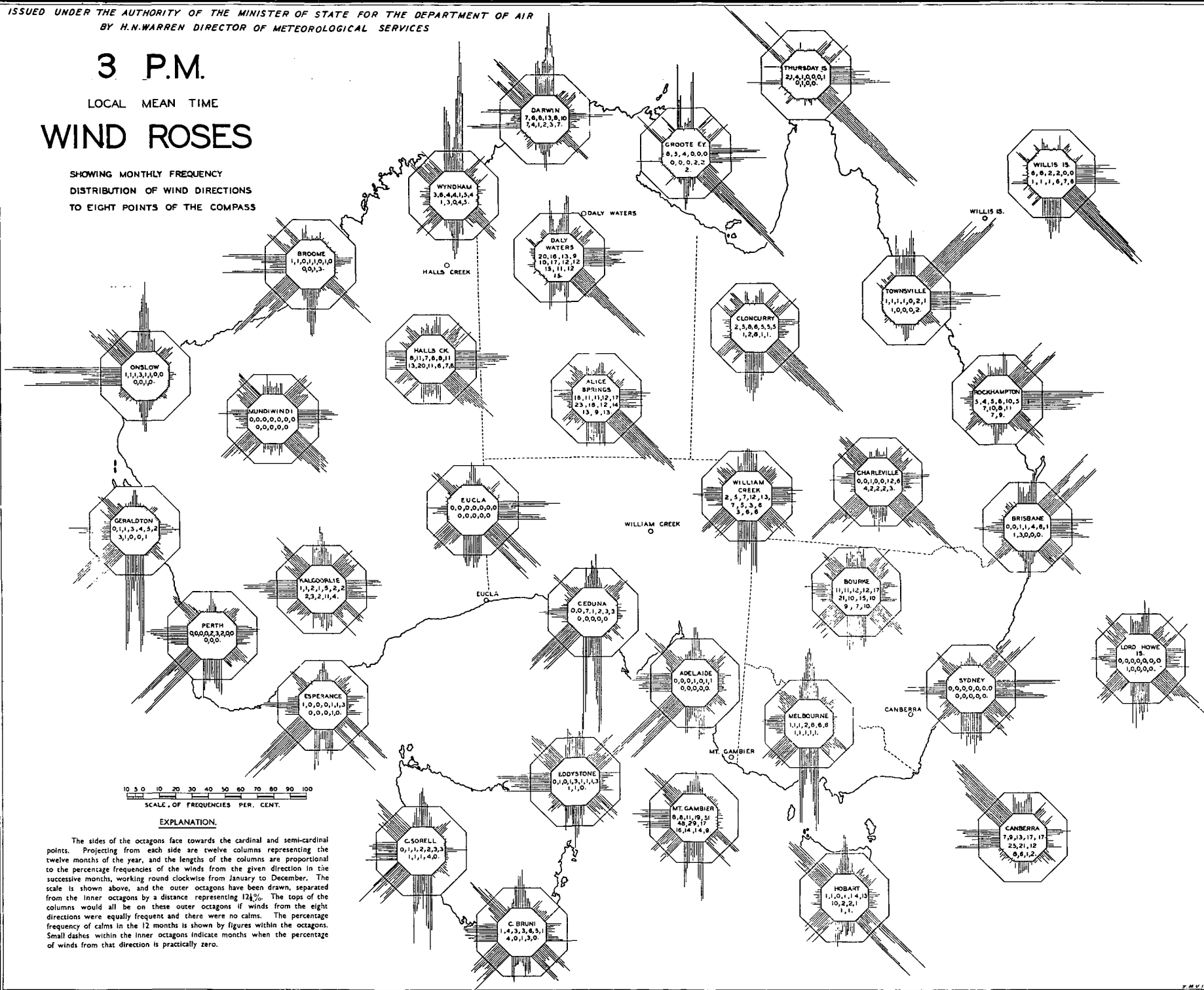
ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE DEPARTMENT OF AIR
BY H.N. WARREN DIRECTOR OF METEOROLOGICAL SERVICES

3 P.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS



Further reference to humidity will be found in the section on effective temperature (*see p. 29*).

4. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure and wind movement. In Australia, the question is of great importance, since in its drier regions water has often to be conserved in tanks and dams. The magnitude of the economic loss by evaporation will be appreciated from the map reproduced herein (*see p. 40*), which shows that the yearly amount varies from about 20 inches over western Tasmania to more than 100 inches over the central and north-western parts of Australia. Over an area of 70 per cent. of the continent, comprising most inland districts and extending to the coast in the North-West and the Eucla divisions of Western Australia, the rainfall does not exceed the evaporation during any month of the year. The central and north-western portions of the continent, comprising 46 per cent. of the total land mass, experience evaporation more than twice as great as their rainfall; it is noteworthy that the vegetation over most of this region is characterized by acacia, semi-desert, shrub steppe and porcupine grass. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more they are protected from the direct rays of the sun and from winds by means of suitable tree planting the less will be the loss by evaporation. The Mansfield Process for treatment of tanks, dams and ponds by hexadecanol film, materially reducing effective evaporation, is a recent development which is already having beneficial results. These matters are naturally of more than ordinary concern in the drier districts of Australia.

(ii) *Comments on Map of Average Annual Evaporation.* The map of average annual evaporation in Australia (*see p. 40*) has been compiled on the basis of records obtained from a number of evaporimeters supplemented by estimates derived from records of saturation deficit by applying the Waite Institute factor of 263.* Some modification of the latter values was found to be necessary in comparison with recordings of evaporimeters.

The standard evaporation tank used in Australia is cylindrical in form and is 36 inches in diameter and 36 inches deep. It is surrounded by a 6-inch water jacket and the whole is sunk into the ground so that the water surface is approximately at ground level.

Saturation deficit is obtained from readings of dry and wet bulb thermometers exposed in a standard Stevenson thermometer shelter. Saturation deficit is the difference between the vapour pressure indicated by the dry and wet bulb readings, and the saturation vapour pressure corresponding to the dry bulb temperature.

The Waite formula, $e=263$ s.d., is not an exact relationship, but it takes account of one of the major factors in evaporation, namely, the difference between saturation vapour pressures at the mean dew point and at the mean air temperature. Errors in the formula are found to be fairly consistent in considerable areas of Australia and corrections have been applied accordingly. No evaporation records are available north of latitude 20°, and corrections have been extrapolated for these areas. The evaporation stations on which estimates for the tropics have been based are Alice Springs (Northern Territory) and Winton (Queensland), and to a lesser degree Blackall (Queensland) and Marble Bar (Western Australia).

The map thus presents an estimate of evaporation for which allowance should be made for a certain margin of error (perhaps 10 per cent. or so) on the conservative side. In the absence of definite information, such a map should serve a useful purpose as a basis for many climatic studies.

For graphs and tables of mean monthly evaporation and rainfall at certain selected stations, *see Official Year Book No. 37*, pages 34–35.

5. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiological features.

Australia lies within the zones of the south-east trades and "prevailing" westerly winds. The southern limit of the south-east trades strikes the eastern shores at about 30° south latitude and the heaviest rains of the Australian continent with very few exceptions, are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island,

* Prescott, J. A. "Atmospheric Saturation Deficit in Australia" (Trans. Royal Society, S.A. Vol. LV., 1931).

upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds, blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia (see p. 41) shows that the heaviest yearly falls occur on the north coast of Queensland (up to more than 160 inches) and in western Tasmania (up to 140 inches), while from 50 to over 60 inches are received on parts of the eastern seaboard from Jervis Bay to the northern part of Cape York Peninsula, also around Darwin, on the West Kimberley coast, near Cape Leeuwin, about the Australian Alps in eastern Victoria and New South Wales, and on the north-eastern highlands in Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, especially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The Southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior.

The map showing mean monthly distribution of rainfall over Australia (see p. 42) gives, in graphic form, information on the amount and occurrence of rain.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where Tully on the Tully River has an average annual rainfall of 179.26 inches and Deeral on the northern coast-line 172.26 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 144 and 169 inches. The maximum and minimum annual amounts there, in inches, are: Tully, 310.92 in 1950 and 104.98 in 1943, a range of 205.94 inches; Deeral, 287.18 in 1945 and 94.65 in 1951, a range of 192.53 inches; Harvey Creek, 254.77 in 1921 and 80.47 in 1902, a range of 174.30 inches; Goondi, 241.53 in 1894 and 67.88 in 1915, a range of 173.65 inches; Innisfail, 232.06 in 1950 and 69.87 in 1902, a range of 162.19 inches.

On five occasions, more than 200 inches have been recorded in a year at Goondi, the last of these being in 1950, when 204.97 inches were registered.

In 31 years of record, Tully has exceeded 200 inches on eleven occasions, and in 28 complete years of record Harvey Creek has exceeded this figure four times.

In Tasmania, the wettest part is in the West Coast region, the average annual rainfall at Lake Margaret being 146.51 inches, with a maximum of 177.30 inches in 1948.

The driest known part of the continent is in an area of approximately 180,000 square miles surrounding Lake Eyre in South Australia, where the annual average is between 4 and 6 inches and where the fall rarely exceeds 10 inches in twelve months.

Records at stations have at times been interrupted, but of the 23 stations in this region which have an annual average of less than 5 inches, six have complete records extending from 30 to 55 years. Of these, Mulka has the lowest average of 4.05 inches (34 years), followed by Troudaninna with an average of 4.15 inches over 42 years. Troudaninna in the period 1893 to 1936 had only one year in which the total exceeded 9 inches (11.07 inches in 1894). There have been protracted periods when the average has been even less than 3 inches. From 1895 to 1903, Troudaninna received the following annual totals:—2.78, 0.99, 5.71, 3.04, 3.18, 2.83, 1.80, 1.11, 4.87, an average of 2.92 inches. From 1918 to 1929 the average was only 2.65 inches, and in this period from December, 1924, to November, 1929, the average was only 1.70 inches.

Mulka since 1918 has only twice exceeded 10 inches for the annual total (11.72 inches in 1920 and 13.56 in 1955) and on 16 occasions in 34 years the annual total has been less than 3 inches. In one particular period from October, 1926 to September, 1930, the average was only 1.26 inches (505 points in 48 months). However, at Kanowana, an even lower four-year average of 1.12 inches was recorded between 1896 and 1899 with yearly totals of 43, 225, 87 and 94 points. An even smaller yearly total was recorded at Mungeranie in 1889 when only 39 points were recorded on five days.

The average number of days of rain a month in this region is only 1 to 2 and the annual number ranges between 10 and 20. Oodnadatta (standard 30 years' average rainfall equal to 4.44 inches) has an average of 20 days of rain a year, while Cordillo Downs in the extreme north-east corner of the State of South Australia receives 5.16 inches on twelve days a year, averaging about one day of rain each month in the 30 year period 1911–1940.

No part of the earth, so far as is known, is absolutely rainless, and although at Arica, in northern Chile, the rainfall over a period of 15 years was nil, a further two years in which there were three measurable showers made the "average" for 17 years 0.02 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map on page 41, which shows the areas subject to average annual rainfalls lying between certain limits. The proportions of the total area of each State and of Australia as a whole enjoying varying quantities of rainfall determined from the latest available information are shown in the following table:—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.
(Per Cent.)

Average Annual Rainfall.	W. Aust.	N. Terr.	S. Aust.	Q'land.	N.S.W. (a)	Vic.	Tas. (b)	Total.
Under 10 inches ..	58.0	24.7	82.8	13.0	19.7	Nil	Nil	37.6
10 and under 15 ins.	22.4	32.4	9.4	14.4	23.5	22.4	Nil	19.9
15 and under 20 ..	6.8	9.7	4.5	19.7	17.5	15.2	0.7	10.9
20 and under 25 ..	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.1
25 and under 30 ..	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.3
30 and under 40 ..	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.6
40 inches and over ..	2.1	12.6	Nil	11.4	6.1	10.4	56.5	8.6
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory.
are available.

(b) Over an area of 2,777 square miles no records

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 44.80 inches, is the wettest, Brisbane, Perth, Melbourne, Hobart and Canberra follow in that order, Adelaide with 21.09 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.46 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, average figures for the various climatological districts have been selected (see map on p. 42). The figures for Northern Rivers (District 14), show that nearly

the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for the Central Coast, south-west of Western Australia (District 9), are the reverse, for while the summer months are dry, the winter months are very wet. In the districts containing Melbourne and Hobart, the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first half of the year is the wettest, with heaviest falls in the autumn; the averages during the last six months are fair, and moderately uniform. Generally, it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 inches or more, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Tables of Rainfall.* The following table of rainfall for a fairly long period of years for each of the Australian capitals affords information as to the variability of the fall in successive years, and the list which follows in the next paragraph of the more remarkable falls furnishes information as to what may be expected on particular occasions:—

RAINFALL: AUSTRALIAN CAPITAL CITIES.

Year.	PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		CANBERRA.(a)		MELBOURNE.		HOBART.(b)	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1928 ..	44.88	140	19.43	107	52.64	145	40.07	130	18.59	90	24.09	151	30.23	205
1929 ..	36.77	132	17.51	119	39.78	118	57.90	129	23.12	70	28.81	168	26.55	194
1930 ..	39.80	129	18.65	116	41.22	144	44.47	141	17.33	82	25.41	145	19.38	152
1931 ..	39.18	118	22.26	145	66.72	136	49.22	153	24.02	103	28.63	164	27.17	179
1932 ..	39.40	121	25.04	141	24.79	97	37.47	146	20.18	118	31.08	179	30.29	155
1933 ..	32.47	116	22.12	130	49.71	118	42.71	153	20.78	96	22.28	136	23.18	182
1934 ..	40.61	120	20.24	125	54.26	117	64.91	183	35.58	131	33.53	157	23.17	194
1935 ..	32.28	129	23.45	140	34.64	111	30.97	151	23.78	95	29.98	183	32.22	196
1936 ..	30.64	118	19.34	121	21.77	101	30.22	130	26.24	108	24.30	187	19.60	178
1937 ..	35.28	120	23.01	128	34.79	113	52.00	157	20.46	82	21.45	144	20.65	160
1938 ..	29.64	111	19.26	119	43.49	110	39.17	132	19.26	79	17.63	131	31.32	169
1939 ..	45.70	123	23.29	139	41.43	122	33.67	127	27.63	116	33.11	166	27.23	188
1940 ..	20.00	98	16.16	116	42.37	93	39.34	125	17.38	64	19.83	126	17.17	135
1941 ..	34.74	122	22.56	126	31.50	105	26.74	129	19.55	91	31.78	157	23.49	145
1942 ..	39.24	140	25.44	133	44.01	125	48.29	121	25.76	104	29.79	148	19.42	163
1943 ..	31.46	117	17.84	135	50.68	126	50.74	136	24.59	123	18.80	150	20.84	149
1944 ..	27.39	123	17.13	114	27.85	100	31.04	115	12.05	75	21.32	143	26.23	151
1945 ..	52.67	137	17.85	105	48.16	130	46.47	136	22.35	100	19.22	152	16.92	157
1946 ..	41.47	122	22.59	135	38.66	83	36.05	111	22.31	94	29.80	177	39.45	193
1947 ..	43.42	137	21.89	146	60.30	146	41.45	137	27.95	135	30.47	163	38.61	181
1948 ..	34.75	126	21.40	122	41.54	106	38.83	131	32.11	101	20.98	155	23.42	178
1949 ..	27.15	126	18.23	119	47.18	121	66.26	149	27.71	100	31.41	163	22.85	157
1950 ..	32.27	122	16.06	91	63.93	152	86.33	183	43.35	132	26.18	147	19.25	131
1951 ..	34.14	127	25.44	135	33.89	87	53.15	143	22.00	103	29.85	155	24.57	163
1952 ..	39.28	123	19.99	128	33.49	122	59.19	130	37.87	141	34.39	177	30.35	165
1953 ..	37.14	119	20.00	121	43.60	101	40.86	110	19.40	102	28.38	148	28.06	162
1954 ..	28.05	112	16.73	109	61.36	142	41.29	134	18.81	82	33.53	139	27.20	143
1955 ..	46.52	138	24.58	134	50.41	136	72.46	160	30.85	124	30.70	160	22.32	168
1956 ..	37.35	107	27.24	154	59.18	120	67.33	155	40.46	150	30.96	188	36.63	175
1957 ..	33.40	117	16.71	110	20.58	80	27.13	110	14.41	81	20.68	146	28.66	129
1958 ..	32.08	107	17.57	121	46.61	115	59.19	144	30.23	117	26.98	155	36.55	166
Average No. of Years Standard 30 years Normal(c)	35.01 83	121 83	21.02 120	121 120	44.83 107	124 99	47.32 100	150 100	24.71 31	103 31	25.90 103	143 103	25.06 76	167 76
	35.99	128	21.09	122	40.09	117	44.80	143	..	..	25.89	156	25.03	180

(a) Commonwealth Forestry Bureau; records in issues of the Official Year Book prior to No. 36 were for the station at Acton which closed down in 1939. (b) Records taken from present site commenced 1883. (c) 1911–1940.

6. Remarkable Falls of Rain.—The following are the most notable falls of rain which have occurred within a period of twenty-four hours ending at 9 a.m. in the various States and Territories. For other very heavy falls at various localities, reference may be made to Official Year Book No. 14, pages 60–64, No. 22, pages 46–48 and No. 29, pages 43, 44 and 51.

HEAVY RAINFALLS: WESTERN AUSTRALIA, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Whim Creek ..	3 Apr., 1898	29.41	Pilbara ..	2 Apr., 1898	14.04
Fortesque ..	3 May, 1890	23.36	Roebuck Plains ..	5 Jan., 1917	14.01
Roebuck Plains ..	6 Jan., 1917	22.36	Broome ..	6 Jan., 1917	14.00
Widjip ..	1 Apr., 1934	19.54	Carlton Hill ..	7 Feb., 1942	12.75
Derby ..	7 Jan., 1917	16.47	Towrana ..	1 Mar., 1943	12.16
Boodarie ..	21 Mar., 1899	14.53	Marble Bar ..	2 Mar., 1941	12.00
Balla Balla ..	21 Mar., 1899	14.40	Jimba Jimba ..	1 Mar., 1943	11.54
Winderrrie ..	17 Jan., 1923	14.23			

HEAVY RAINFALLS: NORTHERN TERRITORY, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Brocks Creek ..	24 Dec., 1915	14.33	Cape Don ..	13 Jan., 1935	13.58
Groote Eylandt ..	9 Apr., 1931	14.29	Bathurst Island ..		
Borroloola ..	14 Mar., 1899	14.00	Mission ..	7 Apr., 1925	11.85
Timber Creek ..	5 Feb., 1942	13.65	Darwin ..	7 Jan., 1897	11.67

HEAVY RAINFALLS: SOUTH AUSTRALIA, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Ardrossan ..	18 Feb., 1946	8.10	Wilmington ..	1 Mar., 1921	7.12
Carpa ..	18 Feb., 1946	7.83	Port Victoria ..	18 Feb., 1946	7.08
Wynbring ..	28 Feb., 1921	7.70	Mannum ..	25 Jan., 1941	6.84
Edithburg ..	18 Feb., 1946	7.46	Wirrabarra ..	7 Mar., 1910	6.80
Hesso ..	18 Feb., 1946	7.36	Cape Willoughby ..	18 Feb., 1946	6.80
Maitland ..	18 Feb., 1946	7.21	Torrens Vale ..	25 Jan., 1941	6.77

HEAVY RAINFALLS: QUEENSLAND, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Crohamhurst ..	3 Feb., 1893	35.71	Springbrook ..	24 Jan., 1947	27.07
Finch-Hatton ..	18 Feb., 1958	34.58	Springbrook ..	21 Feb., 1954	27.04
Port Douglas ..	1 Apr., 1911	31.53	Mt. Jukes ..	18 Feb., 1958	26.40
Yarrabah ..	2 Apr., 1911	30.65	Buderim Mountain ..	12 Jan., 1898	26.20
Mt. Charlton ..	18 Feb., 1958	29.95	Flat Top Island ..	21 Jan., 1918	25.18
Mooloolah ..	3 Feb., 1893	29.11	Landsborough ..	3 Feb., 1893	25.15
Kuranda ..	2 Apr., 1911	28.80	Harvey Creek ..	31 Jan., 1913	24.72
Calen ..	18 Feb., 1958	27.84	Kuranda ..	1 Apr., 1911	24.30
Harvey Creek ..	3 Jan., 1911	27.75	Babinda (Cairns) ..	2 Mar., 1935	24.14
Sarina ..	26 Feb., 1913	27.75	Goondi ..	30 Jan., 1913	24.10
Plane Ck. (Mackay) ..	26 Feb., 1913	27.73	Banyan (Cardwell) ..	12 Feb., 1927	24.00
Deeral ..	2 Mar., 1935	27.60	Carruchan ..	24 Jan., 1934	24.00
Yarrabah Mission ..	24 Jan., 1916	27.20	Tully Mill ..	12 Feb., 1927	23.86

HEAVY RAINFALLS: NEW SOUTH WALES, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Dorrigo	24 June, 1950	25.04	Viaduct Creek ..	15 Mar., 1936	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Buladelah	16 Apr., 1927	19.80
Morpeth	9 Mar., 1893	21.52	Orara Upper .. .	24 June, 1950	19.80
Broger's Creek ..	13 Jan., 1911	20.83	Madden's Creek ..	13 Jan., 1911	18.68
South Head (Sydney Harbour) ..	16 Oct., 1844	20.41	Condong	27 Mar., 1887	18.66
"	29 Apr., 1841	20.12	Candelo	27 Feb., 1919	18.58
Mount Pleasant ..	5 May, 1925	20.10	Mt. Kembla .. .	13 Jan., 1911	18.25
Broger's Creek ..	14 Feb., 1898	20.05	Bega	27 Feb., 1919	17.88
Towamba	5 Mar., 1893	20.00	Kembla Heights	13 Jan., 1911	17.46
			Foxground .. .	11 Sept., 1950	17.04

HEAVY RAINFALL: AUSTRALIAN CAPITAL TERRITORY, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Cotter Junction ..	27 May, 1925	7.13	Uriarra (Woodside)	27 May, 1925	6.57
Canberra (Acton)	27 May, 1925	6.84	Land's End .. .	27 May, 1925	6.35

HEAVY RAINFALLS: VICTORIA, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Balook	18 Feb., 1951	10.81	Blackwood (Green-hill)	26 Jan., 1941	8.98
Hazel Park .. .	1 Dec., 1934	10.50	Tambo Crossing ..	13 July, 1925	8.89
Kalorama .. .	1 Dec., 1934	10.05	Corinella .. .	28 June, 1948	8.75
Cann River .. .	16 Mar., 1938	9.94	Erica	1 Dec., 1934	8.66
Tonghi Creek ..	27 Feb., 1919	9.90	Mt. Buffalo .. .	6 June, 1917	8.53
Cann River .. .	27 Feb., 1919	9.56	Korumburra .. .	1 Dec., 1934	8.51
Olinda	1 Dec., 1934	9.10			

HEAVY RAINFALLS: TASMANIA, UP TO 1958, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Mathinna .. .	5 Apr., 1929	13.25	Riana	5 Apr., 1929	11.08
Cullenswood ..	5 Apr., 1929	11.12	Triabunna .. .	5 June, 1923	10.20

7. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where the temperature falls below zero Fahrenheit during the night. In the ravines around Mt. Kosciusko and similar localities, the snow does not entirely disappear after a severe winter.

8. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen egg and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

9. **Droughts.**—A special article dealing with droughts was included in Year Book No. 45, pages 51–56, but is not repeated in this issue. Fuller information is available in a Bureau of Meteorology publication *Droughts in Australia* by J. C. Foley (Bulletin 43, 1957).

10. **Barometric Pressures.**—The mean annual barometric pressure (corrected to sea level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.12 inches at Alice Springs. Barometer readings corrected to mean sea level and standard gravity have ranged as high, under anticyclonic conditions, as 30.935 inches (at Hobart on 13th July, 1846) and have fallen as low as 27.55 inches. This record low was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 10th March, 1918. For graphs of Mean Barometric Pressure at Capital Cities, see Official Year Book No. 37, page 35.

11. **Wind.**—(i) *Trade Winds.* The two distinctive wind currents in Australia are, as previously stated, the south-east trade and the “prevailing” westerly winds. As the belt of the earth’s atmosphere in which they blow apparently follows the sun’s ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months, the anticyclonic belt travels in high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The “prevailing” westerly winds retreat a considerable distance to the south of Australia, and are less in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from Cape Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *North-west Monsoon.* As the belt of south-east trade winds retreats southward during the summer, it is replaced in the north and north-west of Australia first by a sequence of light variable winds and then by the north-west monsoon. In Australia, the north-west monsoon has not the persistence or regularity of the Indian south-west monsoon but is sufficiently characteristic for the summer in the north of Australia to be called the “North-west Season”. In central and eastern Queensland, the north-west monsoon in the summer has comparatively little effect and the trade winds, though weakened, are still dominant winds. With the migration of the sun northward in the autumn, the north-west monsoon is replaced first by light variable winds and then by the trade winds.

Further particulars of Australian wind conditions and meteorology will be found in Official Year Book No. 38, pages 58–61. Reference should also be made to the wind rose diagrams on pages 43 and 44.

(iii) *Cyclones and Storms.* The “elements” in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to deep depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, along the coastline of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these disturbances are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the south-west and finally towards the south-east.

Very severe cyclones, locally known as “willy willies,” are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They usually originate over the ocean to the north or north-west of Australia, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters", a characteristic feature of the eastern part of Australia, appeared in early issues of the Official Year Book (see No. 6, pages 84-86), and a special article dealing with "Australian Hurricanes and Related Storms" appeared in Official Year Book No. 16, pages 80-84.

Depressions vary considerably in their isobaric forms, intensity and other characteristics. Some bring rain in variable quantities, some heat and others mainly wind. A common type in southern Australia is the "Λ" shaped trough with an abrupt "backing" of the wind or "line squall" as it passes. The cold front is most frequently found through the centre of the "trough" because it is along this line, and extending into the upper levels of the atmosphere, that the demarcation of different air masses is so well defined. The best rains in inland Australia occur when extensive masses of warm moist tropical air move into the interior and are forced to rise by convergence of flow or by impact with a cold air stream.

The speed of low pressure systems is very variable, but in general in southern latitudes the movement is of the order of 500 to 700 miles a day.

12. Influences affecting Australian Climate.—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the deforestation of the surrounding hills, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* Since forests doubtless exercise a great influence on local climate, it follows that to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated and without this and the sheltering influence of ravines and gullies watercourses supplied mainly by melting snow would be subject to alternate periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall is not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States of America, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

13. Rainfall and Temperatures, Various Cities.—Official Year Book No. 34, page 28, shows rainfall and temperature and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

14. Climatological Tables.—The averages and extremes for a number of climatological elements, which have been determined from long series of observations at the Australian capitals up to and including the year 1958 are given on the following eight pages.

NOTE.—The following points apply throughout:—

- (i) Where records are available, mean or average values have been calculated on a standard period of 30 years from 1911 to 1940.
- (ii) Extreme values have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA.
(LAT. 31° 57' S., LONG. 115° 51' E. HEIGHT ABOVE M.S.L. 210 Ft.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 71 feet.)				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(d)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.					3 p.m.
No. of years of observations.	30(b)	30(b)	60	46	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.897	10.1	33.2 27/98	49	E	SSW	10.37	2	2.9	14
February ..	29.922	9.9	27.1 6/08	54	ENE	SSW	8.63	2	3.1	13
March ..	29.976	9.4	27.1 6/13	66	E	SSW	7.52	2	3.5	12
April ..	30.071	7.9	39.8 25/00	63	ENE	SSW	4.62	2	4.2	9
May ..	30.062	7.8	34.4 29/32	73	NE	WSW	2.80	3	5.4	9
June ..	30.068	7.8	38.1 17/27	80	N	NW	1.82	2	5.9	5
July ..	30.082	8.2	42.3 20/26	77	NNE	W	1.76	2	5.6	5
August ..	30.084	8.7	40.3 15/03	78	N	WNW	2.37	2	5.6	6
September ..	30.073	8.7	36.0 11/05	75	ENE	SSW	3.44	1	4.9	8
October ..	30.033	9.3	33.7 6/16	65	SE	SW	5.38	1	4.8	8
November ..	29.989	9.9	32.4 18/97	63	E	SW	7.65	2	3.9	9
December ..	29.923	10.2	32.3 6/22	64	E	SSW	9.69	2	3.2	13
Year { Totals ..	—	—	—	—	—	—	66.05	23	—	108
Year { Averages ..	30.015	9.0	—	—	E	SSW	—	—	4.4	—
Year { Extremes ..	—	—	42.3 20/7/26	80	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	62	62	62	53	60	30(a)
January	84.6	63.3	73.9	110. 7 29/56	48. 6 20/25	62.1	177. 3 22/14	39. 5 20/25	10. 4
February	85.1	63.5	74.3	112. 2 8/33	47. 7 1/02	64.5	173. 7 4/34	39. 8 1/13	9. 8
March	81.3	61.5	71.4	106. 4 14/22	45. 8 8/03	60.6	175. 9 23/47	36. 7 8/03	8. 8
April	76.3	57.4	66.8	99. 7 9/10	39. 3 20/14	60.4	157. 0 8/16	31. 0 20/14	7. 5
May	69.0	52.8	60.9	90. 4 2/07	34. 3 11/14	56.1	146. 0 4/25	25. 3 11/14	5. 7
June	64.4	49.8	57.1	81. 7 2/14	34. 9 22/55	46.8	135. 5 9/14	25. 9 27/46	4. 8
July	62.8	48.0	55.4	76. 4 21/21	34. 2 7/16	42.2	133. 2 13/15	25. 1 30/20	5. 4
August	63.8	48.4	56.1	82. 0 21/40	35. 4 31/08	46.6	145. 1 29/21	26. 7 24/35	6. 0
September	66.8	50.4	58.6	90. 9 30/18	36. 7 6/56	54.2	153. 6 29/16	27. 2 (b)	7. 2
October	69.7	52.6	61.1	95. 3 30/22	40. 0 16/31	55.3	157. 5 31/36	29. 8 16/31	8. 1
November	76.7	57.3	67.0	104. 6 24/13	42. 0 1/04	62.6	167. 0 30/25	35. 5 (c)	9. 6
December	81.2	60.9	71.0	107. 9 20/04	47. 5 29/57	60.4	168. 8 11/27	38. 0 29/57	10. 4
Year { Averages	75.5	55.5	64.5	—	—	—	—	—	7. 8
Year { Extremes	—	—	—	112. 2 8/2/33	34. 2 7/7/16	78.0	177. 3 22/1/14	25. 1 30/7/20	—

(a) Standard 30 years' normal (1911-1940).

(b) 8/52 and 6/56.

(c) 6/10 and 14/12.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).				Fog.		
		Mean.	Highest Mean.	Lowest Mean.	Mean No. Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.		Greatest in one Day.	
No. of years over which observation extends.	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.	
	30(a)	30(a)	59	59	30(a)	30(a)	83	83	83	30(a)	
January	0.438	51	61	41	0.33	3	2.17 1879	Nil	(b)	1.74 27/79	0
February	0.434	51	65	43	0.50	3	6.55 1955	Nil	(b)	3.43 17/55	0
March	0.432	57	66	46	0.90	5	5.71 1934	Nil	(b)	3.03 9/34	0
April	0.397	61	73	51	1.75	8	5.85 1926	Nil	1920	2.62 30/04	0
May	0.365	70	81	61	5.14	15	12.13 1879	0.77	1949	3.90 17/42	2
June	0.337	75	83	68	7.55	17	18.75 1945	2.16	1877	3.90 10/20	2
July	0.322	76	84	69	7.08	19	16.73 1958	2.42	1876	3.90 4/91	2
August	0.316	71	83	62	5.78	19	12.53 1945	0.46	1902	2.91 14/45	1
September	0.341	66	75	58	3.37	15	7.84 1923	0.34	1916	1.82 4/31	0
October	0.345	60	75	52	2.30	12	7.87 1890	0.15	1946	1.73 3/33	0
November	0.374	52	63	41	0.75	7	2.78 1916	Nil	1891	1.54 29/56	0
December	0.409	51	63	44	0.54	5	3.17 1951	Nil	(b)	1.84 3/51	0
Year { Totals	—	—	—	—	35.99	128	—	—	—	—	8
Year { Averages	0.370	62	—	—	—	—	18.75 6/1945	—	—	—	—
Year { Extremes	—	—	84	41	—	—	—	Nil(c)	3.90 10/6/20	—	—

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) November to April, various years.

CLIMATOLOGICAL DATA; DARWIN, NORTHERN TERRITORY.
(LAT. 12° 28' S., LONG. 130° 51' E. HEIGHT ABOVE M.S.L. 97 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. at Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m. to 3 p.m., 9 p.m. to (g)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.					3 p.m.
No. of years of observations.	30	14	—	—	—	—	30	30	30	
January ..	29.706	6.1	—	—	NW & S	W & NW	16	7.1	1	
February ..	29.728	6.7	—	—	W & S	W & NW	16	7.0	1	
March ..	29.751	5.3	—	—	SE	W & NW	14	6.2	3	
April ..	29.809	6.1	—	—	SE	E	6	3.5	11	
May ..	29.859	6.5	—	—	SE	E	1	2.1	19	
June ..	29.892	6.5	—	—	SE	E & SE	0	1.6	22	
July ..	29.911	6.2	—	—	SE	E & SE	0	1.4	23	
August ..	29.914	5.9	—	—	SE	NW & N	0	1.3	23	
September ..	29.886	6.2	—	—	SE & S	NW & N	1	2.0	18	
October ..	29.850	6.2	—	—	S	NW & N	8	3.2	10	
November ..	29.797	5.5	—	—	W & S	NW & N	17	4.8	4	
December ..	29.738	6.2	—	—	NW & S	NW & N	17	6.0	2	
Year { Totals ..	—	—	—	—	—	—	96	—	137	
Averages	29.820	6.1	—	—	SE	NW	—	3.9	—	
Extremes	—	—	—	—	—	—	—	—	—	

(a) Scale 0-10.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30	30	30	41(a)	41(a)	—	25	—	—
January	89.9	77.3	83.6	99.1 8/28	69.2 21/44	—	168.0 26/42	—	—
February	89.8	77.1	83.4	97.0 13/37	63.0 25/49	—	163.6 23/38	—	—
March	90.2	77.1	83.6	100.0 8/31	66.6 31/45	—	165.6 23/38	—	—
April	91.9	75.9	83.9	98.0 19/24	60.8 11/43	—	163.0 1/38	—	—
May	90.9	72.6	81.4	96.8 (b)	59.2 8/49	—	160.0 5/20	—	—
June	87.5	69.5	78.5	98.6 17/37	55.3 18/49	—	155.2 2/16	—	—
July	86.6	67.8	77.2	94.0 16/21	50.7 29/42	—	156.0 28/17	—	—
August	88.5	69.7	79.1	96.3 19/58	57.0 16/57	—	156.2 28/16	—	—
September	91.0	73.9	82.5	99.0 25/28	63.8 1/46	—	157.0 (c)	—	—
October	92.6	77.2	84.9	99.0 14/33	68.5 26/45	—	160.5 30/38	—	—
November	93.2	78.2	85.7	101.0 27/24	67.4 12/45	—	170.4 14/37	—	—
December	92.0	78.1	85.0	100.4 13/31	68.5 24/41	—	169.0 26/23	—	—
Year { Averages	90.3	74.5	82.4	—	—	—	—	—	—
Extremes	—	—	—	101.0 27/11/24	50.7 29/7/42	—	170.4 14/11/37	—	—

(a) Years 1918-41 at Post Office, 1942-56 at aerodrome; sites not strictly comparable. (b) 2/37 and 2/42.
(c) 28/16 and 3/21.

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).						Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.		
No. of years over which observation extends	57	57	57	58	30	21	90	90	90	30	
January	0.925	78	89	69	16.18	20	27.86 1906	2.25 1930	11.67 7/97	0.0	
February	0.920	79	88	71	12.37	18	25.74 1955	0.44 1931	5.25 15/49	0.0	
March	0.912	78	84	69	11.18	17	21.88 1898	0.81 1911	7.18 6/19	0.0	
April	0.800	69	80	60	3.08	6	23.74 1891	Nil (a)	5.51 1/29	0.0	
May	0.652	63	76	49	0.33	1	14.00 1953	Nil (a)	2.19 6/22	0.0	
June	0.545	61	75	52	0.09	1	1.53 1902	Nil (a)	1.32 10/02	0.4	
July	0.522	59	71	47	0.01	0	2.56 1900	Nil (a)	1.71 2/00	1.1	
August	0.613	63	73	53	0.02	0	3.00 1870	Nil (a)	1.06 14/09	0.7	
September	0.732	65	73	54	0.60	2	2.72 1950	Nil (a)	2.00 26/50	0.2	
October	0.832	65	72	60	1.93	5	13.34 1954	Nil (a)	3.74 18/56	0.0	
November	0.868	68	75	62	4.32	10	15.72 1938	0.40 1870	4.73 9/51	0.0	
December	0.890	73	83	65	8.57	15	22.38 1910	0.98 1934	7.87 28/10	0.0	
Year { Totals	—	—	—	—	58.68	95	—	—	—	2.4	
Averages	0.764	68	—	—	—	—	27.86 1/06	Nil (b)	11.67 7/1/97	—	
Extremes	—	89	47	—	—	—	—	—	—	—	

(a) Various years.

(b) April to October, various years.

CLIMATOLOGICAL DATA; ADELAIDE, SOUTH AUSTRALIA.
(LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.											
Month.	Bar. corrected to 32° F. M.n. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 75 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m. to 3 p.m., 9 p.m. to 1 a.m.	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	30(b)	81	42	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.917	9.9	31.6 19/99	72	SW	SW	9.27	2.3	3.6	12.9	
February ..	29.953	8.8	28.8 22/96	64	NE	SW	7.56	2.0	3.7	11.2	
March ..	30.037	8.3	26.2 9/12	67	S	SW	6.39	1.8	4.0	10.6	
April ..	30.119	8.0	32.2 10/96	81	NE	SW	3.78	1.5	5.2	7.2	
May ..	30.131	8.1	31.7 9/80	67	NE	NW	2.27	1.3	5.8	4.9	
June ..	30.119	8.3	31.3 12/78	67	NE	N	1.37	1.3	6.1	4.1	
July ..	30.111	8.5	28.1 25/82	60	NE	NW	1.34	1.5	6.0	4.3	
August ..	30.084	9.2	32.2 31/97	57	NE	SW	1.99	2.0	5.5	5.6	
September ..	30.050	9.2	30.0 2/87	69	NNE	SW	3.05	2.0	5.3	5.8	
October ..	30.007	9.8	32.0 28/98	73	NNE	SW	5.03	2.8	5.3	5.7	
November ..	29.990	9.9	32.2 7/48	79	SW	SW	6.89	3.3	4.9	7.2	
December ..	29.922	9.9	28.1 12/91	75	SW	SW	8.74	2.2	4.2	9.5	
Year {	Totals	—	—	—	—	—	57.68	24.0	—	89.0	
	Averages	30.037	9.0	—	—	NE	SW	—	—	5.0	—
	Extremes	—	—	32.2 (c)	81	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) 10/4/1896, 31/8/1897 and 7/11/1948.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.				
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.					
No. of years over which observation extends.	30(a)	30(a)	30(a)	102	102	102	54(b)	96	30(a)				
January	84.8	61.0	72.9	117.7	12/39	45.1	21/84	72.6	180.0	18/82	36.5	14/79	10.0
February	85.7	61.8	73.7	113.6	12/99	45.5	23/18	68.1	170.5	10/00	35.8	23/26	9.3
March	81.3	59.1	70.2	110.5	9/34	43.9	21/33	66.6	174.0	17/83	32.1	21/33	7.9
April	73.0	54.4	63.7	98.6	5/38	39.6	15/59	59.0	155.0	1/83	30.2	16/17	6.0
May	66.8	50.8	58.8	89.5	4/21	36.9	(c)	52.6	148.2	12/79	25.6	19/28	4.8
June	61.0	46.6	53.8	78.1	4/57	32.5	(c)	43.5	138.8	18/79	21.0	24/44	4.2
July	59.9	45.4	52.7	74.0	11/06	32.0	24/08	42.0	134.5	26/90	22.1	30/29	4.3
August	62.3	46.2	54.3	85.0	31/11	32.3	17/59	52.7	140.0	31/92	22.8	11/29	5.4
September ..	66.8	48.3	57.5	91.3	29/44	32.7	4/58	58.6	160.5	23/82	25.0	25/27	6.3
October	72.5	51.7	62.1	102.9	21/22	36.1	20/58	66.9	162.0	30/21	27.8	(d)	7.3
November ..	78.1	55.4	66.7	113.5	21/65	40.8	2/09	72.7	166.9	20/78	31.5	2/09	8.6
December ..	82.6	58.9	70.7	114.6	29/31	42.8	3/55	71.6	175.7	7/99	32.5	4/84	9.5
Year { Averages	72.9	53.3	63.1										7.0
Year { Extremes	—	—	—	117.7	12/11/39	32.0	24/17/08	85.7	180.0	18/11/82	21.0	24/6/44	—

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete, 1931-34. Discontinued, 1934.

(c) 27/1876 and 24/1944.

(d) 4/1931 and 2/1918.

(e) 22/1895 and 24/1904.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.		
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.		Least Monthly.			Greatest in one Day.	Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	30(a)	89	89	30(a)	30(a)	120		120		120		30(a)	
January ..	0.327	39	59	29	0.76	5	4.00	1850	Nil	(b)	2.30	2/89	0.0	
February ..	0.352	41	56	30	1.10	5	6.09	1925	Nil	(b)	5.57	7/25	0.0	
March ..	0.332	44	58	29	0.87	5	4.60	1878	Nil	(b)	3.50	5/78	0.0	
April ..	0.329	55	72	37	1.45	10	6.78	1853	Nil	1945	3.15	5/60	0.0	
May ..	0.313	64	76	49	2.49	13	7.75	1875	0.10	1934	2.75	1/53	0.6	
June ..	0.294	75	84	67	2.93	15	8.58	1916	0.23	1958	2.11	1/20	1.1	
July ..	0.282	75	87	66	2.49	16	5.38	1865	0.37	1899	1.75	10/65	1.4	
August ..	0.282	68	78	54	2.58	16	6.24	1852	0.33	1944	2.23	19/51	0.4	
September ..	0.289	59	72	44	2.39	13	5.83	1923	0.27	1951	1.59	20/23	0.2	
October ..	0.287	48	67	29	1.54	10	5.24	1949	0.17	1914	2.24	16/08	0.0	
November ..	0.292	41	57	31	1.22	8	4.10	1934	0.04	1885	2.08	7/34	0.0	
December ..	0.322	40	50	31	1.27	6	3.98	1861	Nil	1904	2.42	23/13	0.0	
Year { Totals	—	—	—	—	21.09	122	—		—		—		3.7	
Year { Averages	0.304	52	—	—	—	—	—		—		—		—	
Year { Extremes	—	—	87	29	—	—	8.58 6/1916		Nil (c)		5.57 7/2/25		—	

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) December to April, various years.

CLIMATOLOGICAL DATA; BRISBANE, QUEENSLAND.
(LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 134 Ft.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 105 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(c)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	30(b)	44	44	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.865	6.8	19.7	23/47	58	SE	NE	6.74	9.8	5.7	3.5
February ..	29.912	7.0	23.2	21/54	67	SE	NE	5.49	6.5	5.6	2.4
March ..	29.975	6.5	20.3	1/29	65	S	E	5.05	5.9	5.1	5.4
April ..	30.035	5.9	16.7	3/25	57	S	E	4.05	5.0	4.3	7.8
May ..	30.083	5.8	17.9	17/26	49	SW	SE	3.09	4.1	4.3	8.3
June ..	30.091	5.7	19.0	14/28	58	SW	W & SW	2.45	2.9	4.4	9.2
July ..	30.090	5.6	22.0	13/54	52	SW	W & SW	2.69	2.8	3.8	12.4
August ..	30.105	5.8	14.8	4/35	56	SW	NE	3.51	3.8	3.1	13.1
September ..	30.067	5.9	16.1	1/48	57	SW	NE	4.51	5.8	3.3	13.0
October ..	30.019	6.3	15.7	1/41	62	S	NE	5.81	7.1	4.2	8.5
November ..	29.958	6.7	15.5	10/28	62	SE & N	NE	6.32	9.5	4.9	5.9
December ..	29.890	7.0	19.5	15/26	79	SE	NE	7.02	10.6	5.3	3.8
Year { Totals ..	—	—	—	—	—	—	—	56.73	73.8	—	93.3
Averages	30.007	6.3	—	—	—	SW	NE	—	—	4.5	—
Extremes	—	—	23.2	21/2/54	79	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).				Extreme Range.	Extreme Temperature (°Fahr.).				Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.		Lowest.			Highest in Sun.		Lowest on Grass.		
No. of years over which observation extends.	30(a)	30(a)	30(a)	72		72		72	50(b)		72		30(a)
January	85.5	69.1	77.3	109.8	26/40	58.8	4/93	51.0	169.0	2/37	49.9	4/93	7.6
February	84.6	68.7	76.6	105.7	21/25	58.5	23/31	47.2	165.2	6/10	49.1	22/31	7.4
March	82.3	66.2	74.3	99.4	5/19	52.4	29/13	47.0	162.5	6/39	45.4	29/13	7.0
April	79.1	61.5	70.3	95.2	(c)	44.4	25/25	50.8	153.8	11/16	36.7	24/25	7.1
May	73.7	55.6	64.7	90.3	21/23	40.6	30/51	49.7	147.0	1/10	29.8	8/97	6.6
June	69.4	51.5	60.5	88.9	19/18	36.3	29/08	52.6	136.0	3/18	25.4	23/88	6.3
July	68.6	49.4	59.0	84.3	23/46	36.1	(d)	48.2	146.1	20/15	23.9	11/90	6.8
August	71.1	50.0	60.6	91.0	14/46	37.4	6/87	53.6	141.9	20/17	27.1	9/99	7.5
September	75.5	54.8	65.1	100.9	22/43	40.7	1/96	60.2	155.5	26/03	30.4	1/89	8.2
October	79.2	60.3	69.8	105.3	30/58	43.3	3/99	62.0	157.4	31/18	34.9	8/89	8.4
November	82.3	64.6	73.4	106.1	18/13	48.5	2/05	57.6	162.3	7/89	38.8	1/05	8.2
December	84.5	67.5	76.0	105.9	26/93	56.4	13/12	49.5	165.9	28/42	49.1	3/94	8.2
Year { Averages	78.0	59.9	69.0	—		—		—	—		—		7.5
Extremes	—	—	—	109.8 26/11/40		36.1 (d)		73.7	169.0 2/11/37		23.9 11/7/90		—

(a) Standard 30 years' normal (1911-1940).

(b) From 1887 to March, 1947, excluding 1927 to 1936.

(c) 9/1896 and 5/1903.

(d) 12/7/1894 and 2/7/1896.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.	
No. of years over which observation extends.	30(a)	30(a)	69	69	30(a)	30(a)	107	107(b)	107	30(a)		
January ..	0.636	66	79	53	5.72	12	27.72 1895	0.32 1919	18.31 21/87	0.6		
February ..	0.644	69	82	55	5.47	12	40.39 1893	0.58 1849	10.61 6/31	0.9		
March ..	0.606	72	85	56	4.97	14	34.04 1870	Nil 1849	11.18 14/08	1.6		
April ..	0.512	71	80	56	3.68	11	15.28 1867	0.04 1944	5.46 5/33	4.0		
May ..	0.420	71	85	59	2.35	9	13.85 1876	Nil 1846	5.62 9/79	5.4		
June ..	0.357	73	84	54	2.75	8	14.03 1873	Nil 1847	6.41 15/48	4.5		
July ..	0.331	71	88	53	1.88	8	8.60 1950	Nil 1841	3.54 (c)	4.9		
August ..	0.338	67	80	53	1.07	7	14.67 1879	Nil (d)	4.89 12/87	5.9		
September ..	0.396	62	76	47	1.69	7	5.43 1886	0.10 1907	2.46 2/94	2.8		
October ..	0.459	59	72	48	2.27	8	11.41 1949	0.03 1948	5.34 25/49	1.6		
November ..	0.533	61	73	45	4.00	10	12.40 1917	Nil 1842	4.46 16/86	0.7		
December ..	0.589	62	70	51	4.24	11	17.36 1942	0.35 1865	6.60 28/71	0.4		
Year { Totals ..	—	—	—	—	40.09	117	—	—	—	33.3		
Averages	0.485	67	—	—	—	—	—	—	—	—		
Extremes	—	—	88	45	—	—	40.39 2/1893	Nil (e)	18.31 21/1/87	—		

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete for various years between 1846 and 1859.

(c) 15/1876 and 16/1889.

(d) 1862, 1869, 1880.

(e) Various months in various years.

CLIMATOLOGICAL DATA; SYDNEY, NEW SOUTH WALES.
(LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 Ft.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. in Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 58 feet.)				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(d)	No. of Clear Days.		
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	High- est Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.					3 p.m.	
No. of years of observations.	30(b)	26(c)	45(d)	39(e)	26(c)	26(c)	26(c)	30(f)	30(b)	30(b)	
January ..	29.875	8.9	24.9	2/22	93	S	ENE	5.71	4.8	5.7	4.8
February ..	29.942	8.1	23.5	19/57	63	NE	ENE	4.68	3.3	5.5	5.4
March ..	30.009	7.5	20.7	10/44	58	W	ENE	4.05	2.8	5.3	5.8
April ..	30.063	7.0	23.4	19/27	72	W	NE	2.91	2.4	5.0	7.0
May ..	30.098	6.8	19.6	2/26	63	W	S	2.17	1.6	4.9	7.4
June ..	30.078	7.1	24.5	17/14	73	W	W	1.61	1.5	4.8	8.3
July ..	30.070	7.2	26.6	6/31	68	W	W	1.69	1.1	4.5	10.1
August ..	30.060	7.4	24.6	9/51	68	W	NE	2.30	2.1	3.9	11.1
September ..	30.018	8.0	22.3	19/17	70	W	NE	3.00	3.0	4.2	10.0
October ..	29.976	8.2	23.3	2/57	95	W	ENE	4.17	3.9	4.9	7.4
November ..	29.935	8.5	22.6	14/30	71	W & E	ENE	4.97	4.5	5.5	5.7
December ..	29.881	8.9	24.9	10/20	75	S	ENE	5.64	5.4	5.8	4.8
Year { Totals ..	—	—	—	—	—	—	—	42.90	36.4	—	87.8
Year { Averages ..	30.000	7.8	—	—	—	W	NE	—	—	5.0	—
Year { Extremes ..	—	—	26.6	6/7/31	95	—	—	—	—	—	—

(a) Scale 0-10. (b) Standard 30 years' normal (1911-1940).

(e) 1917-1958.

(f) 1921-1950.

(c) 1915-1940.

(d) 1914-1953.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	100	100	100	84	100	30(b)
January ..	78.6	65.1	71.8	113.6 14/39	51.1 18/49	62.5	164.3 26/15	43.7 6/25	7.5
February ..	78.7	65.5	72.1	107.8 8/26	49.3 28/63	58.5	168.3 14/39	42.8 22/33	7.0
March ..	76.6	62.9	69.8	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	6.4
April ..	72.0	57.7	64.9	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	6.1
May ..	67.0	52.4	59.7	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	5.7
June ..	62.8	48.1	55.5	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	5.3
July ..	61.8	46.4	54.1	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	6.1
August ..	64.3	47.6	56.0	86.8 24/54	36.8 3/72	50.0	149.0 30/78	26.1 4/09	7.0
September ..	68.3	51.4	59.9	92.3 27/19	40.8 2/45	51.5	142.2 12/78	30.1 17/05	7.3
October ..	71.7	55.9	63.8	99.4 4/42	42.2 6/27	57.2	152.2 20/33	32.7 9/05	7.5
November ..	74.5	59.8	67.1	104.5 6/46	45.8 1/05	61.3	158.5 28/99	36.0 6/06	7.5
December ..	76.9	63.2	70.1	108.0 20/57	48.4 3/24	59.6	164.5 27/89	41.4 3/24	7.5
Year { Averages	71.7	56.3	63.7	—	—	—	—	—	6.8
Year { Extremes	—	—	—	113.6 14/1/39	35.7 22/6/32	77.9	168.3 14/2/39	24.0 4/7/93	—

(a) Standard 30 years' normal (1911-1940).

(b) 1921-1950 (different exposure prior to 1921).

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).						Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.		
No. of years over which observation extends.	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.	
	30(a)	30(a)	80	80	30(a)	30(a)	100	100	100	30(b)	
January	0.537	65	78	58	3.86	13	15.26 1911	0.25 1932	7.08 13/11	0.4	
February	0.560	68	81	60	3.15	12	22.22 1956	0.12 1939	8.90 25/73	0.8	
March	0.527	71	85	62	4.44	13	20.52 1942	0.42 1876	11.05 28/42	1.8	
April	0.441	73	87	63	5.65	14	24.49 1861	0.06 1868	7.52 29/60	2.8	
May	0.362	75	90	63	4.98	12	23.03 1919	0.14 1957	8.36 28/89	3.7	
June	0.303	76	89	63	3.68	11	25.30 1950	0.19 1904	5.17 16/84	3.3	
July	0.282	74	88	63	4.89	12	13.23 1950	0.10 1946	7.80 7/31	2.9	
August	0.288	68	84	54	2.41	10	14.89 1899	0.04 1885	5.33 2/60	2.3	
September	0.325	62	79	49	2.77	11	14.05 1879	0.08 1882	5.69 10/79	1.0	
October	0.378	60	77	46	2.80	11	11.13 1916	0.21 1867	6.37 13/02	0.6	
November	0.433	60	79	42	2.54	11	9.88 1865	0.07 1915	5.24 27/55	0.6	
December	0.501	63	77	51	3.63	13	15.82 1920	0.23 1913	4.75 13/10	0.4	
Year { Totals	—	—	—	—	44.80	143	—	—	—	20.6	
Year { Averages	0.393	68	81	60	—	—	—	—	—	—	
Year { Extremes	—	—	90	42	—	—	25.30 6/1950	0.04 8/1885	11.05 28/3/42	—	

(a) Standard 30 years' normal (1911-1940).

(b) 1921-1950.

CLIMATOLOGICAL DATA; CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

(LAT. 35° 18' S., LONG. 149° 6' E. HEIGHT ABOVE M.S.L., 1,906 FT.)

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.										
Month.	Bar. corrected to 32° F. M.n. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 20 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., and 3 p.m., (a)	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of years of observations.	26	27	29	20(b)	27	27	28	20	26	27
January ..	29.856	4.7	14.9 23/33	65	NW	NW	8.31	1.5	4.9	7.3
February ..	29.900	4.2	15.3 24/33	64	E	NW	6.42	2.3	5.1	6.3
March ..	30.009	3.7	18.2 28/42	52	E	NW	5.20	0.2	5.1	6.9
April ..	30.059	3.6	18.6 8/45	52	NW	NW	3.28	0.3	5.4	4.7
May ..	30.126	3.0	13.2 27/58	64	NW	NW	1.95	0.2	5.6	5.8
June ..	30.120	3.6	16.1 2/30	60	NW	NW	1.29	0.1	6.0	4.5
July ..	30.133	3.4	23.4 7/31	62	NW	NW	1.27	0.0	5.7	5.6
August ..	30.065	4.1	15.7 25/36	59	NW	NW	1.81	0.1	5.4	5.7
September ..	30.057	4.2	17.4 28/34	61	NW	NW	2.87	0.4	5.1	6.1
October ..	29.954	4.3	14.7 12/57	74	NW	NW	4.43	1.0	5.4	5.2
November ..	29.885	4.7	17.2 28/42	66	NW	NW	5.87	1.1	5.5	4.5
December ..	29.834	4.7	16.1 11/38	66	NW	NW	7.64	0.7	5.0	6.3
Year { Totals ..	—	—	—	—	—	—	50.34	7.9	—	68.9
Averages	30.000	4.0	—	—	NW	NW	—	—	5.3	—
Extremes	—	—	23.4 7/7/31	74	—	—	—	—	—	—

(a) Scale 0-10.

(b) 1939 to 1958.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	29	29	29	31	31	31	(a)	31	27
January	82.4	56.0	69.2	107.4 11/39	38.0 1/56	69.4	—	30.1 10/50	8.4
February	80.7	56.1	68.4	99.8 13/33	35.0 (b)	64.8	—	26.5 23/43	7.3
March	76.2	52.7	64.4	99.1 6/38	34.8 31/49	64.3	—	26.4 26/35	7.2
April	66.7	45.5	56.1	89.7 6/38	29.0 29/34	60.7	—	19.0 18/44	6.7
May	59.3	39.1	49.2	72.6 1/36	22.5 (c)	50.1	—	15.6 (d)	5.2
June	52.6	35.7	44.1	64.9 1/54	18.1 20/35	43.9	—	8.9 25/44	4.2
July	51.8	33.8	42.8	63.5 16/34	20.0 (e)	43.5	—	10.8 9/37	4.8
August	55.1	35.4	45.3	71.0 24/54	21.0 3/29	50.0	—	10.1 6/44	5.8
September	61.4	38.9	50.1	81.5 16/34	25.2 6/46	56.3	—	13.0 6/45	7.2
October	67.0	44.2	55.6	90.0 13/46	29.0 24/28	61.0	—	18.2 2/45	7.8
November	72.9	48.7	60.8	101.4 19/44	32.2 11/36	69.2	—	22.9 6/56	8.2
December	79.5	53.3	66.4	103.5 27/38	36.0 24/28	67.5	—	29.1 21/56	8.5
Year { Averages	67.1	44.9	56.0	—	—	—	—	—	6.8
Extremes	—	—	—	107.4 11/11/39	18.1 20/6/35	89.3	—	8.9 25/6/44	—

(a) No record. 9/37 and 27/43.

(b) 22/31 and 23/31.

(c) 9/29 and 25/57.

(d) 13/37 and 15/46.

(e) 19/29,

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean. Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.		
No. of years over which observation extends.	26	28	28	28	29	29	31	31	31	25		
January	0.370	53	69	39	2.13	7	6.69 1941	0.02 1932	3.22 30/58	0.1		
February	0.388	59	71	40	2.17	7	6.03 1948	0.01 1933	3.24 17/28	0.2		
March	0.378	66	82	48	2.48	7	12.69 1950	0.01 1940	2.53 20/52	1.0		
April	0.315	71	81	54	2.17	8	5.19 1952	0.07 1942	2.52 9/45	1.4		
May	0.254	79	89	67	2.06	8	6.13 1948	0.06 1935	3.88 3/48	4.8		
June	0.212	81	90	72	1.92	9	6.09 1931	0.18 1944	2.32 25/56	5.8		
July	0.196	81	91	73	1.61	10	4.09 1933	0.27 1940	2.02 13/33	5.3		
August	0.213	75	88	60	1.98	11	4.71 1939	0.36 (a)	2.07 12/29	2.4		
September	0.239	66	78	51	1.62	9	3.03 1937	0.13 1946	1.75 3/47	1.4		
October	0.273	60	72	46	2.77	11	6.59 1934	0.34 1940	2.51 25/34	0.4		
November	0.301	55	67	38	2.11	8	4.45 1950	0.28 1936	2.45 9/50	0.1		
December	0.338	51	70	37	1.86	8	8.80 1947	0.16 1938	2.29 28/29	0.0		
Year { Totals	—	—	—	—	24.88	103	—	—	—	22.9		
Averages	0.286	66	—	—	—	—	—	—	—	—		
Extremes	—	—	91	37	—	—	12.69 3/50	0.01 2/33,3/40	3.88 3/5/48	—		

(a) 1944 and 1949.

CLIMATOLOGICAL DATA; MELBOURNE, VICTORIA.
(LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L. 114 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Temperature, Wind, Evaporation, Lightning, Clouds and Clear Days.											
Month.	Bar. corrected to 32° F. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 93 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds 9 a.m., 3 p.m., 9 p.m.(o)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	15(c)	46	49	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.897	8.8	21.1	27/41	66	S & SW	S	6.55	1.8	4.9	6.8
February ..	29.950	8.4	19.0	13/47	74	N & S	S	5.10	2.3	4.8	6.4
March ..	30.025	7.8	17.2	19/50	66	N	S	4.26	1.8	5.3	5.5
April ..	30.092	7.1	19.9	16/43	67	N	S	2.53	1.2	5.9	4.6
May ..	30.113	7.4	21.8	1/57	72	N	N	1.57	0.5	6.1	3.4
June ..	30.097	7.2	22.8	16/47	62	N	N	1.18	0.4	6.5	2.7
July ..	30.079	8.7	20.9	9/44	68	N	N	1.16	0.3	6.3	2.9
August ..	30.048	8.2	21.3	20/42	65	N	N	1.54	0.9	6.0	3.1
September ..	30.001	8.5	20.9	15/57	69	N & W	N & S	2.41	1.3	5.9	3.3
October ..	29.968	8.4	18.6	12/52	69	N	S	3.54	1.8	6.1	3.8
November ..	29.951	8.6	21.2	13/58	71	S & SW	S	4.62	2.3	6.0	3.6
December ..	29.896	8.7	21.0	11/52	61	S & SW	S	5.85	1.9	5.6	4.5
Year { Totals ..	—	—	—	—	—	—	—	40.31	16.5	—	50.6
Year { Averages ..	30.010	8.1	—	—	—	N	S	—	—	5.8	—
Year { Extremes ..	—	—	22.8	16/6/47	74	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) Early records not comparable.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.				
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.					
No. of years over which observation extends.	30(a)	30(a)	30(a)	103	103	103	86(b)	99	35(c)				
January	77.7	56.9	67.3	114.1	13/39	42.0	28/85	72.1	178.5	14/62	30.2	28/85	7.8
February	78.6	58.0	68.3	109.5	7/01	40.2	24/24	69.3	167.5	15/70	30.9	6/91	7.4
March	74.9	55.2	65.1	107.0	11/40	37.1	17/84	69.9	164.5	1/68	28.9	(d)	6.5
April	67.9	50.8	59.3	94.8	5/38	34.8	24/88	60.0	152.0	8/61	25.0	23/97	5.0
May	62.0	46.9	54.5	83.7	7/05	29.9	29/116	53.8	142.6	2/59	21.1	26/16	4.1
June	56.8	43.8	50.3	72.3	2/57	28.0	11/66	44.3	129.0	11/61	19.9	30/29	3.4
July	56.2	42.6	49.4	69.3	22/26	27.0	21/69	42.3	125.8	27/80	20.5	12/03	3.7
August	58.7	43.7	51.2	77.0	20/85	28.3	11/63	48.7	137.4	29/69	21.3	14/02	4.6
September ..	63.3	46.0	54.7	88.6	28/28	31.0	3/40	57.6	142.1	20/67	22.8	8/18	5.5
October	67.9	48.7	58.3	98.4	24/14	32.1	3/71	66.3	154.3	28/68	24.8	22/18	5.8
November .. .	71.3	51.8	61.5	105.7	27/94	36.5	2/96	69.2	159.6	29/65	24.6	2/96	6.2
December .. .	75.4	55.3	65.3	110.7	15/76	40.0	4/70	70.7	170.3	20/69	33.2	1/04	7.0
Year { Averages	67.6	50.0	58.8	—	—	—	—	—	—	—	—	—	5.6
Year { Extremes	—	—	—	114.1	13/11/39	27.0	21/7/69	87.1	178.5	14/11/62	19.9	30/6/29	—

(a) Standard 30 years' normal (1911-1940).

(b) Records discontinued, 1946.

(c) 1916-1950.

(d) 17/1884 and 20/1897.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).								Fog.
		Mean. 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.				
No. of years over which observation extends.	30(a)	30(a)	48	48	30(a)	30(a)	103		103		103		30(a)
January	0.382	58	68	50	1.88	9	6.66	1941	0.01	1932	2.97	9/97	0.1
February	0.417	62	77	48	2.00	8	7.72	1939	0.03	1870	3.44	26/46	0.3
March	0.385	64	79	50	2.22	9	7.50	1911	0.14	1934	3.55	5/19	1.1
April	0.351	72	82	66	2.30	13	6.71	1901	Nil	1923	2.28	22/01	2.3
May	0.311	79	88	70	1.94	14	5.60	1942	0.14	1934	1.85	7/91	6.8
June	0.276	83	92	75	2.06	16	4.51	1859	0.61	1958	1.74	21/04	6.5
July	0.264	82	86	75	1.93	17	7.02	1891	0.57	1902	2.71	12/91	6.5
August	0.271	76	82	65	2.02	17	4.35	1939	0.48	1903	1.94	26/24	3.7
September	0.288	68	76	60	2.20	15	7.93	1916	0.52	1907	2.62	12/80	1.3
October	0.307	62	67	52	2.63	14	7.61	1869	0.29	1914	3.00	17/69	0.3
November	0.336	60	69	52	2.33	13	8.11	1954	0.25	1895	2.86	21/54	0.3
December	0.373	59	69	48	2.38	11	7.18	1863	0.11	1904	3.92	4/54	0.2
Year { Totals	—	—	—	—	25.89	156	—	—	—	—	—	—	29.4
Year { Averages	0.323	69	—	—	—	—	8.11	11/1954	Nil	4/1923	3.92	4/12/54	—
Year { Extremes	—	—	92	48	—	—	—	—	—	—	—	—	—

(a) Standard 30 years' normal (1911-1940).

CLIMATOLOGICAL DATA; HOBART, TASMANIA.
(LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	No. of years of observations.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 40 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m. (g)	No. of Clear Days.	
			Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
						9 a.m.	3 p.m.					
		30(b)	30(b)	66	66	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29	819	8.0	20.8	30/16	76	NNW	SSE	4.84	0.9	6.4	1.9
February ..	29	913	7.2	25.2	4/27	65	NNW	SSE	3.71	1.0	6.2	2.3
March ..	29	961	6.8	21.4	13/38	75	NW	SSE	3.10	1.2	6.1	2.4
April ..	29	997	6.7	24.1	9/52	74	NW	W	1.98	0.7	6.5	1.7
May ..	30	009	6.3	20.2	20/36	79	NNW	NW	1.37	0.4	6.1	2.4
June ..	29	986	6.2	23.7	27/20	71	NW	NW	0.91	0.4	6.2	2.4
July ..	29	958	6.5	22.9	22/53	78	NNW	NNW	0.94	0.3	6.1	2.0
August ..	29	906	6.8	25.5	19/26	87	NNW	NW	1.28	0.4	6.1	2.1
September ..	29	860	7.9	21.5	26/15	84	NNW	NW	1.97	0.7	6.3	1.5
October ..	29	833	8.2	19.2	8/12	74	NNW	SW	3.05	0.6	6.6	1.0
November ..	29	831	7.9	21.2	18/15	73	NNW	S	3.77	0.7	6.4	1.3
December ..	29	816	7.6	23.4	1/34	70	NNW	SSE	4.37	0.5	6.8	1.1
Year { Totals ..	29	907	7.2	—	—	—	NNW	W	31.29	7.8	—	22.1
Year { Averages ..	—	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	—	25.5	19/8/26	87	—	—	—	—	6.3	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.	
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.		
	30(a)	30(a)	30(a)	89(b)	89(b)		89(b)	57(c)		71(b)
No. of years over which observation extends.	30(a)	30(a)	30(a)	89(b)	89(b)	89(b)	57(c)	71(b)	30	
January	69.8	52.4	61.0	105.0	1/00	40.1	64.9	160.0	19/97	7.7
February	70.6	53.7	62.2	104.4	12/99	39.0	65.4	165.0	24/98	7.1
March	67.5	51.3	59.4	99.1	13/40	35.2	63.9	150.9	26/44	6.4
April	62.2	48.0	55.1	87.1	1/41	33.3	53.8	142.0	18/93	5.0
May	57.8	44.6	51.2	77.8	5/21	29.2	48.6	128.0	19/02	4.4
June	52.8	41.2	47.0	69.2	1/07	29.2	40.0	122.0	12/94	4.0
July	52.7	40.6	46.6	66.1	14/34	27.7	38.4	121.0	12/93	4.4
August	55.4	41.7	48.7	71.6	28/14	28.9	42.7	129.0	—/87	5.1
September	59.0	43.7	51.4	81.7	23/26	31.0	50.7	138.0	23/93	5.9
October	62.5	46.1	54.3	92.0	24/14	32.0	60.0	156.0	9/93	6.1
November	65.0	48.2	56.6	98.3	26/37	35.0	63.3	154.0	19/92	7.2
December	67.9	51.3	59.6	105.2	30/97	38.0	67.2	161.5	10/39	7.3
Year { Averages	61.9	46.9	54.4	—	—	—	—	—	—	5.9
Year { Extremes	—	—	—	105.2	—	27.7	77.5	165.0	24/2/98	—
				30/12/97	—	77.5	—	—	18.3	16/9/26

(a) Standard 30 years' normal (1911-1940).
not comparable; records discontinued, 1946.(b) Records 1855-1882 not comparable.
(d) 9/37 and 11/37.(c) Period 1934-1938
(e) 5/86 and 13/05. (f) —/89 and —/93.
(g) 1/86 and —/99.**Humidity, Rainfall and Fog.**

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.	
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.		Least Monthly.	Greatest in one Day.		Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	54	69	69	30(a)	30(a)	76(b)		76(b)		76(b)		30(c)
January ..	0.309	59	72	46	1.82	13	5.91	1893	0.17	(d)	2.96	30/16	0.0
February ..	0.342	63	77	48	1.68	10	5.15	1954	0.11	1914	2.20	1/54	0.0
March ..	0.323	67	77	52	2.13	13	10.05	1946	0.29	1943	3.47	17/46	0.3
April ..	0.290	72	84	58	2.31	14	8.50	1935	0.07	1904	5.02	20/09	0.2
May ..	0.263	78	89	65	1.71	14	8.43	1958	0.14	1913	1.75	2/93	0.9
June ..	0.233	80	91	68	2.25	16	9.38	1954	0.28	1886	5.80	7/54	0.8
July ..	0.227	80	94	72	2.14	17	6.02	1922	0.17	1950	2.51	18/22	1.0
August ..	0.232	76	92	60	1.82	18	6.32	1946	0.30	1892	2.28	14/90	0.4
September ..	0.240	67	85	58	1.90	17	7.93	1957	0.38	1951	6.15	15/57	0.1
October ..	0.258	63	73	51	2.52	18	7.60	1947	0.39	1914	2.58	4/06	0.0
November ..	0.274	60	72	50	2.23	16	7.39	1885	0.33	1921	3.70	30/85	0.1
December ..	0.306	58	67	45	2.52	14	7.72	1916	0.17	1931	3.33	5/41	0.0
Year { Totals ..	—	—	—	—	25.03	180	—		—		—		3.8
Year { Averages ..	0.271	69	—	—	—	—	10.05 3/1946		0.07 4/1904		6.15 15/9/57		—
Year { Extremes ..	—	—	94	45	—	—	—		—		—		—

(a) Standard 30 years' normal (1911-1940).
(d) 1915 and 1958.

(b) Records prior to 1883 not comparable.

(c) 1922-1951.

CHAPTER III.

GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—The legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State, there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which inform him in detail of the manner in which his duties are to be fulfilled. The Legislature in each State was bi-cameral until 1922, in which year the Queensland Parliament became uni-cameral. In the bi-cameral States, it consists of (a) a Legislative Council and (b) a Legislative Assembly or House of Assembly. In Queensland, the Legislative Assembly constitutes the legislature. The Upper House is known as the Senate in the Commonwealth Parliament, and as the Legislative Council in the State Parliaments. The Lower House in the bi-cameral Parliaments is known as the House of Representatives in the Commonwealth Parliament, as the Legislative Assembly in the State Parliaments of New South Wales, Victoria and Western Australia, and as the House of Assembly in the State Parliaments of South Australia and Tasmania. The legislative powers of these Parliaments are delimited by the Commonwealth and State Constitutions. The Assembly, which is the larger House, (Queensland as pointed out above is uni-cameral) is, in all cases, elective, the franchise extending to adult British subjects with certain residential qualifications. The Council in each of the States other than New South Wales is elected by the people of the State concerned, the constituencies being differently arranged and, in general, some property or special qualification for the electorate being required. In Victoria, however, under the Legislative Council Reform Act passed in October, 1950, adult suffrage was adopted for Legislative Council elections. In the case of New South Wales, the Council is elected by the members of both Houses of Parliament at a simultaneous sitting. In the Federal Parliament, the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

2. **The Sovereign.**—(i) *Accession of Queen Elizabeth II.* On 7th February, 1952, the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2nd June, 1953.

(ii) *Royal Style and Titles Act 1953.* At a conference of Prime Ministers and other representatives of the British Commonwealth in London in December, 1952, it was agreed that the Royal Style and Titles then in use were not in accord with current relationships within the British Commonwealth and that there was need of a new form which would, in particular, "reflect the special position of the Sovereign as Head of the Commonwealth".

It was therefore decided that each member of the British Commonwealth should use a form of the Royal Style and Titles suited for its own circumstances, while retaining as a common element the description "Queen of Her other Realms and Territories and Head of the Commonwealth"; and that consultation between all countries of the Commonwealth should take place on any future proposal to change the form of the Royal Style and Titles used in any country.

To give effect to these decisions in Australia, the Royal Style and Titles Act was passed on 3rd April, 1953, giving Parliament's assent to the adoption by the Queen, for use in relation to the Commonwealth of Australia and its Territories, of the following Royal Style and Titles:—"Elizabeth the Second, by the Grace of God of the United Kingdom,

Australia and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith.” The Act also approves the adoption by the Queen of a Royal Style and Titles for use in relation to other countries of the British Commonwealth in accordance with the principles formulated at the London conference.

(iii) *Authorization of a Royal Great Seal.* By warrant published in the Commonwealth Gazette of 17th November, 1955, Her Majesty authorized the Great Seal of the Commonwealth to be used as a Royal Great Seal in sealing all things whatsoever (other than things that pass the said Great Seal) that bear Her Majesty's Sign Manual and the counter-signature of one of Her Ministers of State for the Commonwealth.

3. Powers and Functions of the Governor-General and of the State Governors.—
(i) *Governor-General of the Commonwealth.* Section 2 of the Commonwealth Constitution provides as follows:—

“A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.”

As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen—either by Letters Patent (*see* Letters Patent dated 29th October, 1900, and 30th October, 1958), by Instructions under the Royal Sign Manual and Signet, by Commission issued to him under the Royal Sign Manual and Signet, or by any instrument of delegation under section 2 of the Constitution. Powers which have been so assigned include, amongst others, the power to appoint a Deputy or Deputies of the Governor-General, to administer or authorize any other person to administer the Oath of Allegiance, to grant pardons and to remit fines for offences against the laws of the Commonwealth and to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth.

Other powers and functions are conferred on the Governor-General by the Constitution. For example, under section 5 of the Constitution he may appoint times for holding the sessions of the Parliament, prorogue Parliament and dissolve the House of Representatives. Under section 32, the Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives. Under section 58, he assents in the Queen's name to a proposed law passed by both Houses of the Parliament or withholds assent, or reserves the law for the Queen's pleasure; or he may return the proposed law to the House in which it originated and may transmit therewith any amendments which he may recommend. Under section 61, he exercises the executive power of the Commonwealth, under section 62, he chooses and summons Executive Councillors, who hold office during his pleasure, and under section 64, he may appoint Ministers of State for the Commonwealth. By section 68, the command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General, as the Queen's representative. Under the conventions of responsible government obtaining in Commonwealth countries, the Governor-General's executive functions generally are exercised on the advice of Ministers of State. In this regard, the Governor-General's position has become assimilated to that of the Queen in relation to her Ministers of State for the United Kingdom.

In addition, many powers and functions are exercised by the Governor-General under Acts of the Commonwealth Parliament. Most Acts, for example, provide that the Governor-General may make regulations, not inconsistent with the Act, either generally to give effect to the Act or to cover certain matters specified in the power. The Governor-General may be authorized by statute to issue proclamations—for example, to declare an Act in force or a state of things to exist, e.g. the existence of an epidemic. The Governor-General has been given power by statute to legislate for certain Territories of the Commonwealth. Other statutory powers include the power to appoint and dismiss certain office holders. A reference to the Governor-General, in Acts of the Commonwealth Parliament, means, unless the contrary intention appears, the Governor-General acting with the advice of the Executive Council (Acts Interpretation Act 1901–1957, section 16A).

(ii) *Governors of the States.* The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates.

The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the "Governor's Instructions" given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition they have been invested with various statutory functions, either under the State Constitutions, conferred by Imperial Act, or by Act of the Parliament of the State.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown.

In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

(iii) *Holders of Office.* For the names of the Governors-General since the inception of the Commonwealth and the present State Governors, see § 3, page 73.

4. The Cabinet and Executive Government.—(i) *General.* Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as "Cabinet" or "responsible" government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform Governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case, he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

(ii) *The Cabinet.* This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, until January, 1956, all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of twelve senior Ministers, who constitute the Cabinet, and ten Ministers of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

(iii) *The Executive Council.* This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The

meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

(iv) *The Appointment of Ministers.* Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. Australian practice follows, broadly, that of the United Kingdom. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to "form a Ministry"—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Official Year Book (*see* No. 6, p. 942). It may be added, however, that legislation now exists in all States, the effect of which is to obviate the necessity of responsible Ministers vacating their seats in Parliament on appointment to office.

(v) *Ministers in Upper and Lower Houses.* The following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in December, 1959:—

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES, DECEMBER, 1959.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	5	2	4	(a)	3	2	1	17
The Lower House ..	17	14	10	11	5	8	8	73
Total ..	22	16	14	11	8	10	9	90

(a) Abolished in 1922.

For the names of the occupants of ministerial office in each of the Parliaments of Australia in December, 1959, *see* § 3 of this chapter (p. 73). Subsequent changes of importance in Ministries will be found in the Appendix to this volume.

(vi) *Numbers and Salaries of Commonwealth Ministers.* Under sections 65 and 66, respectively, of the Constitution of the Commonwealth, the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000, each provision to operate, however, "until the Parliament otherwise provides."

Subsequently, number and salaries were increased to 8—£13,650 (1915) and to 9—£15,300 (1917). During the period of financial emergency in the early thirties the ministerial salary appropriation was reduced to as low as £10,710 a year, and was not restored to its former level until 1938, when the appropriation was £16,950. During the period of restoration of salary, the number of Ministers was increased to 10 (1935). Later increases were as follows:—to 11—£18,600 (1938); 19—£21,250 (1941) (these increases were war-time provisions, extended into peacetime in 1946); £27,650 (1947—number unaltered); 20—£29,000 (1951); £41,000 (1952—number unaltered); 22—£46,500 (1956); £66,600 (1959—number unaltered). In 1938, an additional ministerial allowance of £1,500 a year was granted to the Prime Minister; this was increased to £3,500 a year (exempt from income tax) in 1952 and at the same time an additional ministerial allowance of £1,000 a year (exempt from income tax) was granted to each other Minister. This latter figure was increased, in 1959, to £1,500 a year and the income tax exemption was removed.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* paras. 5 and 6 following).

5. Number and Salary of Members of the Legislatures, Australian Parliaments, December, 1959.—The following table shows the number and annual salary of members in each of the legislative chambers in December, 1959:—

**AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES,
31st DECEMBER, 1959.**

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NUMBER OF MEMBERS.								
Upper House ..	60	60	34	(a)	20	30	19	223
Lower House ..	124	94	66	75	39	50	35	483
Total ..	184	154	100	75	59	80	54	706

**ANNUAL SALARY.
(£.)**

Upper House ..	(b) 2,750	500	(c) 2,000	(a)	(d) 1,900	(e) 2,180	(f) 1,382	..
Lower House ..	(b) 2,750	(g) 2,350	(c) 2,000	h £2,501 10s.	(d) 1,900	(e) 2,180	(f) 1,382	..

(a) Abolished in 1922. (b) Plus expense allowances—Senators, £800; Members of the House of Representatives, city electorates, £850, country electorates, £1,050. See also para. 6 following. (c) Plus allowance of £550 for metropolitan, £750 for urban, £850 for inner country and £950 for outer country electorates. (d) Plus allowance of £250 where electorate is less than 50 miles from Adelaide; £300 if more than 50 miles, £325 if more than 200 miles. (e) Plus allowances varying from £250 to £450 according to distance of electorate from Perth. (f) Plus allowance according to area of electorate and distance from the capital varying from £250 to £550 in the case of the Legislative Council, and from £500 to £800 in the case of the House of Assembly. (g) Plus allowance varying from £650 to £950 according to remoteness of electorate. (h) Plus marginal allowances of £65 to £200 for metropolitan and near metropolitan electorates and ranging from £175 to £400 for other non-metropolitan electorates.

6. **Commonwealth Parliamentary Allowances.** Section 48 of the Commonwealth Constitution granted to each senator and member of the House of Representatives an allowance of £400 a year until Parliament should decide to alter it. This general allowance has been altered on several occasions (*see* Official Year Book No. 42, pp. 69 and 70) and in 1959 was raised to £2,750 a year. Certain additional allowances are also provided for holders of parliamentary offices, etc.

7. **Enactments of the Parliaments.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States, other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania, laws are expressed to be enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. The Governor-General or the State Governor acts on behalf of, and in the name of, the Sovereign in assenting to Bills passed by the Legislatures but he may reserve them for the special consideration of the Sovereign. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth, the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Commonwealth.**—(i) *Qualifications for Membership and for Franchise—Commonwealth Parliament.* Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age

or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disentitled on racial or other grounds, who has lived in Australia for six months continuously. Residence in a sub-division for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory. A member of the Defence Forces on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections whether enrolled or not.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are:—Membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or of certain non-European races are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise.

(ii) *Commonwealth Parliaments and Elections.* From the establishment of the Commonwealth until 1949, the Senate consisted of 36 members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament and, as the population of the Commonwealth had more than doubled since its inception, the Parliament enacted legislation in 1948 enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. Thus, the Representation Act 1948 provided that there shall be ten Senators from each State instead of six, increasing the total to 60 Senators. To effect this transition in the Senate, seven Senators were elected from each State at the elections of 1949, four taking office immediately the Senate sat after the election, the remaining three commencing their term on the usual date—1st July, 1950. Members of this Chamber are normally elected for a term of six years, but half the members retire at the end of every third year, and they are eligible for re-election. Accordingly, at each normal election of Senators, five Senators are now elected in each State, making 30 to be elected at each such election.

In accordance with the constitution, the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the Representation Act 1905–1938, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows:—New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by Distribution Commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and sub-divisions, and State electoral boundaries.

The population as disclosed by the Census taken on 30th June, 1954, necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10th December, 1955, is New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122. A redistribution of electoral boundaries was effected by Distribution Commissioners appointed in each State.

Since the general elections of 1922, the Northern Territory has been represented by one member in the House of Representatives. The Australian Capital Territory Representation Act 1948 gave similar representation to the Australian Capital Territory as from the elections of 1949. The members for the Territories may join in the debates but are

not entitled to vote, except on any proposed law which relates solely to the respective Territories, on a motion for the disallowance of any ordinance of the Territory or on any amendment to such motion, or on a motion for the disallowance of a regulation under an ordinance. The Commonwealth Parliament, however, when providing for a Legislative Council for the Northern Territory in 1947, relinquished the power to disallow ordinances for that Territory.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators, the whole State constitutes the electorate. For the purposes of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Official Year Book.

There have been twenty-two complete Parliaments since Federation. Until 1927, the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the late King George VI., then Duke of York, on 9th May, 1927.

The fifth Parliament, which was opened on 9th July, 1913, was dissolved on 30th July, 1914 in somewhat unusual circumstances, when for the first time in the history of the Commonwealth, a deadlock occurred between the Senate and the House of Representatives, and, in accordance with section 57 of the Constitution which provides for such an eventuality, both Houses were dissolved by the Governor-General. The nineteenth Parliament was similarly dissolved. It opened on 22nd February, 1950, but on 19th March, 1951, in its first session, a double dissolution was proclaimed for the second time since the inception of the Commonwealth.

The system of voting for the House of Representatives is preferential. Until 1948, voting for the Senate was also preferential, but the Commonwealth Electoral Act 1948, introduced with the Representation Act 1948 to enlarge the Commonwealth Parliament (*see* p. 66), changed the system of scrutiny and counting of votes in Senate elections from preferential to that of proportional representation. For a description of the system, *see* Official Year Book No. 38, pages 82-3.

For particulars of electors enrolled and of electors who voted at the various Commonwealth elections, *see* earlier Year Books. Elections for the Senate have usually been held at the same time as those for the House of Representatives. The double dissolution of the nineteenth Parliament, however, referred to above, led to the holding of Senate elections on separate dates. An election for the Senate was held on 9th May, 1953, and a further election was due within one year of 30th June, 1956, i.e. the date of the completion of the term of office of half the elected Senators. The twenty-first Parliament opened on 4th August, 1954, and was dissolved on 4th November, 1955, enabling the election for the Senate and the House of Representatives again to be held simultaneously.

The twenty-second Parliament opened on 15th February, 1956, and was dissolved on 14th October, 1958. Elections for both Houses were held on 22nd November, 1958, and particulars of electors and voting in the several States are as follows:—

SENATE ELECTION, 22nd NOVEMBER, 1958.

State.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	1,005,431	1,058,873	2,064,304	961,725	1,003,397	1,965,122	95.65	94.76	95.20
Victoria ..	731,950	772,960	1,504,910	704,332	736,171	1,440,503	96.23	95.24	95.72
Queensland ..	393,437	390,917	784,354	373,067	371,876	744,943	94.82	95.13	94.98
South Australia	239,579	251,351	490,930	232,673	241,159	473,832	97.12	95.95	96.52
West. Australia	180,508	180,901	361,409	171,630	173,168	344,798	95.08	95.73	95.40
Tasmania ..	88,197	90,520	178,717	85,552	86,359	171,911	97.00	95.40	96.19
Total ..	2,639,102	2,745,522	5,384,624	2,528,979	2,612,130	5,141,109	95.83	95.14	95.48

ELECTION FOR HOUSE OF REPRESENTATIVES, 22nd NOVEMBER, 1958.

State.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	1,005,431	1,058,873	2,064,304	961,725	1,003,397	1,965,122	95.65	94.76	95.20
Victoria	731,950	772,960	1,504,910	704,332	736,171	1,440,503	96.23	95.24	95.72
Queensland	393,437	390,917	784,354	373,067	371,876	744,943	94.82	95.13	94.98
South Australia	239,579	251,351	490,930	232,673	241,159	473,832	97.12	95.95	96.52
West. Australia	180,508	180,901	361,409	171,630	173,168	344,798	95.08	95.73	95.40
Tasmania	88,197	90,520	178,717	85,552	86,359	171,911	97.00	95.40	96.19
Nor. Territory	4,498	3,180	7,678	3,330	2,513	5,843	74.03	79.03	76.10
Aust. Cap. Terr.	10,593	9,970	20,563	9,786	9,362	19,148	92.38	93.90	93.12
Australia	2,654,193	2,758,672	5,412,865	2,542,095	2,624,005	5,166,100	95.78	95.12	95.44

The twenty-third Parliament opened on 17th February, 1959.

(iii) *Commonwealth Referendums.* According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the States and of the electors who voted, before it can be presented for Royal Assent. So far, 24 proposals have been submitted to referendums and the consent of the electors has been received in four cases only, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referendums and the voting thereon were given in previous issues of the Official Year Book (*see* No. 18, p. 87, No. 31, p. 67, No. 35, p. 60, No. 36, p. 61, No. 37, pp. 64–5, No. 38, p. 84 and No. 40, p. 56), and a brief summary was given in Official Year Book No. 41 (*see* p. 67).

2. *State Elections.*—(i) *Latest in each State.* (a) *Upper Houses.* The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia, Western Australia and Tasmania. In New South Wales, members of the Legislative Council are elected at simultaneous sittings of the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
Victoria	1958	722,231	766,062	1,488,293	625,020	658,645	1,283,665	93.25	91.89	92.54
South Australia	1959	(a)	(a)	187,248	(a)	(a)	70,007	(a)	(a)	81.14
Western Australia	1958	112,023	38,648	150,671	36,062	15,222	53,284	42.65	44.52	43.17
Tasmania	1959	616,810	616,366	633,176	14,757	13,936	28,693	87.79	85.15	86.49

(a) Not available.

(b) Total electors enrolled in contested divisions.

(b) *Lower Houses.* The following table shows particulars of the voting at the most recent election for the Lower House in each State:—

STATE LOWER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Fe-males.	Total.						
New South Wales	1959	1010096	1065172	2075268	856,071	883,510	1739581	94.60	93.42	94.00
Victoria . .	1958	717,192	760,873	1478065	679,807	713,006	1392813	94.79	93.71	94.23
Queensland . .	1957	396,804	394,915	791,719	355,395	351,512	706,907	94.92	94.23	94.58
South Australia . .	1959	(a)	(a)	497,456	(a)	(a)	400,531	(a)	(a)	93.95
Western Australia	1959	181,298	180,331	361,629	134,130	135,192	269,322	91.81	92.91	92.36
Tasmania . .	1959	89,034	91,310	180,344	85,120	85,439	170,559	95.60	93.57	94.57

(a) Not available.

(ii) *Elections in Earlier Years.* Official Year Book No. 45 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown above, and some general information is given in the following paragraphs.

3. *The Parliament of New South Wales.*—The Parliament of New South Wales consists of two Chambers, the Legislative Assembly and the Legislative Council. By legislation assented to in July, 1949, the Assembly was enlarged from 90 to 94 members, elected in single-seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years and by legislation enacted in 1950 cannot be extended beyond that period except with the approval of electors by referendum. Until 1934, the Council was a nominee Chamber, consisting of a variable number of members appointed for life without remuneration, but as from 23rd April, 1934, it was reconstituted and became a House of 60 members to serve without remuneration for a term of twelve years, with one-quarter of the members retiring every third year. As from 1st September, 1948, however, members of the Council have been paid an allowance, now £500 a year. Vacancies are filled by members of both Chambers, who vote as a single electoral body at simultaneous sittings of both Chambers.

Any person who is an elector entitled to vote at a Legislative Assembly election, or a person entitled to become such elector, and who has been for at least three years resident in Australia, and who is a natural-born or naturalized subject of the Queen, is eligible for election to the Legislative Council. For the Council franchise, an elector must be a sitting member of either the Legislative Council or the Legislative Assembly. Any person qualified to vote at a Legislative Assembly election for any electoral district in New South Wales is qualified to be elected as a Member for that or any other district. Any person not under twenty-one years of age, who is a natural born or naturalized subject of the Queen, and who has lived in Australia for at least six months continuously, and in New South Wales for at least three months, and in any sub-division for at least one month immediately preceding the date of claim for enrolment, is entitled to enrolment as an elector for the Legislative Assembly. Persons are disqualified either as members or voters for reasons generally the same as those outlined on page 66.

Since the introduction of responsible government in New South Wales, there have been 38 complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-eighth was dissolved on 16th February, 1959. The thirty-ninth Parliament opened on 21st April, 1959.

The elections of 1920, 1922, and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at all later appeals to the people. The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election. The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised by them for the first time in 1904.

4. **The Parliament of Victoria.**—Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, and there was also, until the Legislative Council Reform Act 1950, a difference in the qualifications necessary for members and electors. The number of members in the Upper House is 34, two members being returned for each of the seventeen provinces, and in the Lower House, 66, one member being returned for each electorate. In the Legislative Council, the tenure of the seat is for six years, except that one-half of the members who are elected for provinces at any general election for the Council are entitled to hold their seats for a period of only three years, one member for each of the seventeen provinces retiring every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years.

Prior to the passing of the Act referred to above, which operated from November, 1951, property qualifications were required for membership of, and franchise for, the Legislative Council. As alternatives to the property qualifications for the Council franchise, certain professional and academic qualifications were also allowed. As amended, however, the qualifications for membership of the Council are possessed by any adult natural-born subject of the Queen, or by any adult alien naturalized for five years and resident in Victoria for two years. Entitlement for enrolment as an elector is extended to every adult natural-born or naturalized subject who has resided in Australia for at least six months continuously and in Victoria for at least three months and in any subdivision for at least one month immediately preceding the date of claim for enrolment. These qualifications for membership and electors apply also in respect of the Legislative Assembly. Reasons for disqualification follow the general pattern for Australia (*see p. 66*).

Since the introduction of responsible government in Victoria, there have been 40 complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the fortieth was dissolved on 18th April, 1958. The forty-first Parliament was opened on 8th July, 1958.

Single voting is observed in elections held for either House, plural voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937. A preferential system of voting (*see Official Year Book No. 6, p. 1182*) was adopted for the first time in Victoria at the Assembly election held in November, 1911. The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

5. **The Parliament of Queensland.**—As stated previously, the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being 23rd March, 1922. The Legislative Assembly is composed of 75 members, each elected for a period of three years and each representing an electoral district. Under the Electoral Districts Act of 1958, the number of members and the number of electorates were increased from 75 to 78, and the increase is to become effective as from the end of the thirty-fifth Parliament which is due to be terminated before 24th August, 1960. This Act divided the State into three zones—metropolitan, provincial cities and country, having 28, 12 and 38 electoral districts respectively. A commission of three appointed by the Governor-in-Council completely distributed the prescribed zones into the number of electoral districts on a quota basis. The Commissioners were empowered to adopt a margin of allowance to be used whenever necessary, but the quota was not to be departed from to a greater extent than one-fifth more or one-fifth less; and they were to take into consideration community or diversity of interest, means of communication, physical features, the boundaries of areas of Local Authorities and divisions of Local Authorities and probable future movements of population. The boundaries of the electoral districts were to conform as far as possible to the boundaries of the areas and divisions of areas of Local Authorities.

Any person qualified to be enrolled for any electoral district is qualified for election to the Legislative Assembly. Any person not under the age of twenty-one years, who is a natural-born or naturalized British subject with continuous residence within Australia for six months, in Queensland for three months, and in an electoral district for one month prior to making a claim for enrolment, is qualified to enrol as an elector. The classes of persons not qualified to be elected are similar to those for other Australian Parliaments (*see p. 66*).

Since the establishment of responsible government in Queensland, there have been 34 complete Parliaments, the last of which was dissolved on 13th June, 1957. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes

and Proceedings of the Legislative Assembly, the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on 29th May, 1860, and delivered the Opening Address. The thirty-fifth Parliament was opened on 27th August, 1957.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. The election of 1907 was the first State election in Queensland at which women voted, the right being conferred under the Elections Acts Amendment Act 1905. In 1942, the system of preferential voting was abolished and that of election of the candidate obtaining the highest number of votes in the electorate now operates.

6. The Parliament of South Australia.—In this State, there is a Legislative Council composed of twenty members and a House of Assembly with 39 members, both Chambers being elective. For the Legislative Council, the State is divided into five districts each returning four members. The term of office is six years, two members for each district retiring at the end of every three years. Thirty-nine districts return one member each to the House of Assembly; prior to 1938 there were 46 members representing nineteen districts. The term of office for the House of Assembly is three years.

Any person who is at least thirty years of age, is a British subject or legally made a denizen of the State and who has resided in the State for at least three years is qualified for membership of the Legislative Council. Qualifications for the Council franchise are that a person is at least twenty-one years of age, a British subject, an inhabitant of the State with residence for at least six months prior to the registration of the electoral claim, and that he or she has had certain war service, or possesses property qualifications relating to ownership, leaseholding, or inhabitant occupancy. Any person qualified and entitled to be registered as an elector for the House of Assembly is qualified and entitled for election as a member of that House. Qualifications for enrolment as an elector for the House of Assembly are that a person is at least twenty-one years of age, is a British subject, and has lived continuously in Australia for at least six months, in the State for three months and in an Assembly subdivision for one month immediately preceding the date of claim for enrolment. Provisions in the Constitution for disqualification from membership or from the franchise in respect of either House follow the usual pattern for Australia (*see* p. 66).

Since the inauguration of responsible government in South Australia, there have been 35 complete Parliaments, the first of which was opened on 22nd April, 1857. The thirty-fifth Parliament closed on 3rd March, 1959 and the thirty-sixth was opened on 9th June, 1959. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the Constitution (Quinquennial Parliament) Act 1933, but this Act was repealed by the Constitution Act Amendment Act (No. 2) 1939, and the three-year term was reverted to.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised by women for the first time at the Legislative Assembly election on 25th April, 1896. Compulsory voting for the House of Assembly was first observed at the 1944 election. A system of preferential voting is in operation.

7. The Parliament of Western Australia.—In this State, both Chambers are elective. For the Legislative Council, there are 30 members, each of the ten provinces returning three members. One member for each province retires at the end of every two years. At each biennial election, the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of 50 members, one member being returned by each electoral district. Members of the Legislative Assembly are elected for three years.

Qualifications required for membership of the Legislative Council are the age of at least 30 years, residence in Western Australia for two years and being a natural-born British subject or naturalized for five years prior to election and resident in the State for that period. Qualifications required for Council franchise are the age of at least 21 years, residence in Western Australia for six months, being a natural-born British subject or naturalized for twelve months, and certain property qualifications relating to freehold, leasehold, or householder occupancy. Qualifications required for membership of the Legislative Assembly are the age at least 21 years, residence in Western Australia for twelve months,

and being a natural-born British subject or naturalized for five years and resident in the State for two years prior to election. Qualifications required for the franchise are the age of at least 21 years, residence in Western Australia for six months and in an electoral district continuously for three months, and being a natural-born or naturalized British subject. Persons may be disqualified as members or voters for reasons similar to those for other Australian Parliaments (*see* p. 66).

Since the establishment of responsible government in Western Australia, there have been twenty-two complete Parliaments, the first of which was opened on 30th December, 1890. The twenty-second Parliament closed on 20th March, 1959, and the twenty-third was opened on 30th June, 1959. A preferential system of voting is in use in Western Australia.

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939.

8. The Parliament of Tasmania.—In Tasmania, there are two legislative Chambers, the Legislative Council and the House of Assembly, both bodies being elective. In accordance with the Constitution Act 1946, the Council now consists of nineteen members, elected for six years and returned from nineteen divisions. Three members retire annually (except in the 1953 elections and in each sixth successive year thereafter, when four retire) and the Council cannot be dissolved as a whole. There are five House of Assembly divisions, corresponding to the Commonwealth electoral divisions, each returning seven members elected under a system of proportional representation which first came into force at the 1909 elections. By the Constitution Act 1936, the life of the Assembly was extended from three to five years.

Persons qualified for election to the Legislative Council must be at least 25 years of age and qualified to vote as Council electors, have been resident in Tasmania for a period of five years at any one time or at least two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for at least five years. An elector for the Council must be at least twenty-one years of age, a natural-born or naturalized subject and resident in Tasmania for a period of twelve months, with certain freehold or occupancy property qualifications, or the spouse of a person qualified to vote as the owner or occupier of property, or with certain academic, professional, defence force, or war service qualifications. For the House of Assembly, members must be at least twenty-one years of age, have been resident in Tasmania for a period of five years at any one time or for a period of two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for a period of five years. Electors must be at least twenty-one years of age, natural-born or naturalized subjects and resident in Tasmania for a period of six months continuously. Reasons for disqualification of members or voters are similar to those for other Australian Parliaments (*see* p. 66).

The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been 32 complete Parliaments since the inauguration of responsible government, the thirty-second having been dissolved on 9th April, 1959. The thirty-third Parliament was opened on 2nd June, 1959.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting for both Houses came into force on the passing of the Electoral Act in 1928. The system of voting is proportional representation by single transferable vote.

9. Superannuation Funds of the Parliament of the Commonwealth and of the Australian States.—(i) *General.* In Official Year Book No. 38, there is a conspectus of Superannuation Funds of the Parliaments of the Commonwealth and of the five States (New South Wales, Victoria, Queensland, South Australia and Western Australia) in which such schemes operate (*see* pp. 91-9). This conspectus summarizes the main features of each fund as at 30th June, 1949. Although the schemes are still essentially as described in the conspectus, there have been several subsequent amending Acts providing for extensions or increases in benefits, increased contributions, etc., in some of the schemes. In December, 1955, the Tasmanian Parliament passed an Act, the Parliamentary Retiring Allowances Act, No. 59 of 1955, details of which may be found in earlier issues of the Year Book (*see* No. 44, p. 72). The Commonwealth Retiring Allowances Act 1952 provided *inter alia* for additional benefit of £1,200 a year, subject to certain conditions, to a retired Prime Minister, and in case of his death, additional benefit of £750 a year to his widow.

(ii) *Finances.* For particulars of the financial operations of these schemes *see* Chapter XX.—Private Finance.

§ 3. Administration and Legislation.

1. **The Commonwealth Parliaments.**—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since Federation:—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	9th May, 1901	23rd November, 1903
Second	2nd March, 1904	5th November, 1906
Third	20th February, 1907	19th February, 1910
Fourth	1st July, 1910	23rd April, 1913
Fifth	9th July, 1913	30th July, 1914(a)
Sixth	8th October, 1914	26th March, 1917
Seventh	14th June, 1917	3rd November, 1919
Eighth	26th February, 1920	6th November, 1922
Ninth	28th February, 1923	3rd October, 1925
Tenth	13th January, 1926	9th October, 1928
Eleventh	9th February, 1929	16th September, 1929
Twelfth	20th November, 1929	27th November, 1931
Thirteenth	17th February, 1932	7th August, 1934
Fourteenth	23rd October, 1934	21st September, 1937
Fifteenth	30th November, 1937	27th August, 1940
Sixteenth	20th November, 1940	7th July, 1943
Seventeenth	23rd September, 1943	16th August, 1946
Eighteenth	6th November, 1946	31st October, 1949
Nineteenth	22nd February, 1950	19th March, 1951(a)
Twentieth	12th June, 1951	21st April, 1954
Twenty-first	4th August, 1954	4th November, 1955
Twenty-second	15th February, 1956	14th October, 1958
Twenty-third	17th February, 1959	

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet, and under section 57 of the Constitution.

2. **Governors-General and Commonwealth Ministries.**—(i) *Governors-General.* The following statement shows the names of the Governors-General since the inception of the Commonwealth:—

GOVERNORS-GENERAL.

Rt. Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW) P.C., K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.

Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17th July, 1902 to 9th January, 1903, (Acting).

Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9th January, 1903, to 21st January, 1904.

Rt. Hon. HENRY STAFFORD, BARON NORTHCOLE, P.C., G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.

Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.B., G.C.V.O. From 9th September, 1908, to 31st July, 1911.

Rt. Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.

Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914, to 6th October, 1920.

Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6th October, 1920, to 8th October, 1925.

Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.

Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.B., G.C.M.G. From 22nd January, 1931, to 23rd January, 1936.

General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.St.J. From 23rd January, 1936, to 30th January, 1945.

His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945 to 11th March, 1947.

Rt. Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G. From 11th March, 1947 to 8th May, 1953.

Field-Marshal SIR WILLIAM JOSEPH SLIM, K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8th May, 1953, to 2nd February, 1960.

Rt. Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2nd February, 1960.

(ii) *Administrators.* In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth during the absence from Australia or illness of the Governor-General. The following is a list of such appointments.

Term of Office.

Rt. Hon. Frederic John Napier, Baron Chelmsford, K.C.M.G.	21st December, 1909, to 27th January, 1910
Lieut.-Colonel the Rt. Hon. Arthur Herbert Tennyson, Baron Somers, K.C.M.G., D.S.O., M.C.	3rd October, 1930, to 22nd January, 1931
Captain the Rt. Hon. William Charles Arcedeckne Vanneck, Baron Huntingfield, K.C.M.G., K.St.J.	29th March, 1938, to 24th September, 1938
Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O.	5th September, 1944, to 30th January, 1945
Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O.	18th January, 1947, to 11th March, 1947
General* Sir John Northcott, K.C.M.G., C.B., M.V.O.†	19th July, 1951, to 14th December, 1951
General* Sir John Northcott, K.C.M.G., K.C.V.O., C.B.	30th July, 1956, to 22nd October, 1956
General Sir Reginald Alexander Dallas Brooks, K.C.B., K.C.M.G., K.C.V.O., D.S.O., K.St.J.	8th January, 1959, to 15th January, 1959

(iii) *Commonwealth Ministries.* (a) *Names and Tenure of Office, 1901 to 1958.* The following list shows the name of each Commonwealth Ministry to hold office since 1st January, 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES.

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
- (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
- (iii) WATSON MINISTRY, 27th April, 1904, to 17th August, 1904.
- (iv) REID-MCLEAN MINISTRY, 18th August, 1904, to 5th July, 1905.
- (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
- (vi) FISHER MINISTRY, 13th November, 1908, to 1st June, 1909.
- (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
- (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
- (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
- (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915.
- (xi) HUGHES MINISTRY, 27th October, 1915, to 14th November, 1916.
- (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
- (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918.
- (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
- (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
- (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.
- (xvii) LYONS MINISTRY, 6th January, 1932, to 7th November, 1938.
- (xviii) LYONS MINISTRY, 7th November, 1938, to 7th April, 1939.
- (xix) PAGE MINISTRY, 7th April, 1939, to 26th April, 1939.
- (xx) MENZIES MINISTRY, 26th April, 1939, to 14th March, 1940.
- (xxi) MENZIES MINISTRY, 14th March, 1940, to 28th October, 1940.
- (xxii) MENZIES MINISTRY, 28th October, 1940, to 29th August, 1941.
- (xxiii) FADDEN MINISTRY, 29th August, 1941, to 7th October, 1941.

* Lieutenant-General Sir John Northcott was granted honorary rank of General whilst administering the Government of the Commonwealth. † K.C.V.O., 1954.

COMMONWEALTH MINISTRIES—*continued.*

- (xxiv) CURTIN MINISTRY, 7th October, 1941, to 21st September, 1943.
- (xxv) CURTIN MINISTRY, 21st September, 1943, to 6th July, 1945.
- (xxvi) FORDE MINISTRY, 6th July, 1945, to 13th July, 1945.
- (xxvii) CHIFLEY MINISTRY, 13th July, 1945, to 1st November, 1946.
- (xxviii) CHIFLEY MINISTRY, 1st November, 1946, to 19th December, 1949.
- (xxix) MENZIES MINISTRY, 19th December, 1949, to 11th May, 1951.
- (xxx) MENZIES MINISTRY, 11th May, 1951, to 11th January, 1956.
- (xxxi) MENZIES MINISTRY, 11th January, 1956, to 10th December, 1958.
- (xxxii) MENZIES MINISTRY, 10th December, 1958.

(b) *Names of Holders of Ministerial Office, to 5th February, 1960.* In Official Year Book No. 17, 1924, there appeared the names of each Ministry up to the Bruce-Page Ministry (9th February, 1923, to 22nd October, 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contained a list, commencing with the Bruce-Page Ministry, which covered the period between the date on which it assumed power, 9th February, 1923, and 31st July, 1951, showing the names of all persons who held office in each Ministry during that period.

This issue shows only particulars of the latest Menzies Ministry, as constituted on 5th February, 1960. For any subsequent changes see the Appendix to this volume.

MENZIES MINISTRY—from 10th December, 1958.

(*Portfolios as from 5th February, 1960.*)

(The State in which each Minister's electorate is situated is shown in parentheses.)

- **Prime Minister and Minister for External Affairs*—
THE RT. HON. R. G. MENZIES,
C.H., Q.C., M.P. (Vic.).
- **Minister for Trade*—
THE RT. HON. J. McEWEN, M.P. (Vic.).
- **Treasurer*—
THE RT. HON. H. E. HOLT, M.P. (Vic.).
- **Vice-President of the Executive Council; and Minister for National Development*—
SENATOR THE HON. W. H. SPOONER,
M.M. (N.S.W.).
- **Minister for Defence*—
THE HON. A. G. TOWNLEY, M.P. (Tas.).
- **Minister for Territories*—
THE HON. P. M. C. HASLUCK, M.P.
(W.A.).
- **Minister for Labour and National Service*—
THE HON. W. McMAHON, M.P.
(N.S.W.).
- **Minister for Civil Aviation*—
SENATOR THE HON. S. D. PALTRIDGE,
M.P. (W.A.).
- **Postmaster-General*—
THE HON. C. W. DAVIDSON, O.B.E.,
M.P. (Qld.).
- **Minister for Immigration*—
THE HON. A. R. DOWNER, M.P. (S.A.).
- **Attorney-General*—
THE HON. SIR GARFIELD BARWICK, Q.C.,
M.P. (N.S.W.).

- **Minister for Primary Industry*—
THE HON. C. F. ADERMANN, M.P.
(Qld.).
- Minister for Repatriation*—
SENATOR THE HON. SIR WALTER COOPER,
M.B.E. (Qld.).
- Minister for Health and Minister-in-charge of C.S.I.R.O.*—
THE HON. D. A. CAMERON, O.B.E.,
M.P. (Qld.).
- Minister for the Army*—
THE HON. J. O. CRAMER, M.P. (N.S.W.).
- Minister for Air*—
THE HON. F. M. OSBORNE, D.S.C.,
V.R.D., M.P. (N.S.W.).
- Minister for Social Services*—
THE HON. H. S. ROBERTON, M.P.
(N.S.W.).
- Minister for Customs and Excise*—
SENATOR THE HON. N. H. D. HENTY
(Tas.).
- Minister for Supply*—
THE HON. A. S. HULME, M.P. (Qld.).
- Minister for the Interior; and Minister for Works*—
THE HON. G. FREETH, M.P. (W.A.).
- Minister for the Navy*—
SENATOR THE HON. J. G. GORTON
(Vic.).
- Minister for Shipping and Transport*—
THE HON. H. F. OPPERMAN, O.B.E.,
M.P. (Vic.).

* Minister in the Cabinet.

(iv) *Commonwealth Ministers of State.* In Official Year Book No. 38, a statement was included showing the names of the Ministers of State who had administered the several Departments during the period 1st April, 1925, to 31st December, 1949 (pp. 74–79). This was in continuation of a similar statement covering the period from the inauguration of Commonwealth Government to 1925 which appeared in Official Year Book No. 18.

3. **Governors and State Ministers.**—The names of the Governors and members of the Ministries in each State in March, 1960, are shown in the following statement. (Changes since March, 1960, are shown in the Appendix to this volume.)

NEW SOUTH WALES.

Governor—LIEUT.-GENERAL SIR ERIC WINSLOW WOODWARD, K.C.M.G., C.B., C.B.E., D.S.O., K.St.J.

Ministry (from 28th October, 1959).

Premier and Minister for Education—
THE HON. R. J. HEFFRON, M.L.A.

Deputy Premier and Treasurer—
THE HON. J. B. RENSHAW, M.L.A.

Attorney-General, Minister of Justice, and Vice-President of the Executive Council—
THE HON. R. R. DOWNING, M.L.C.

Chief Secretary, and Minister for Tourist Activities—
THE HON. C. A. KELLY, M.L.A.

Minister for Local Government and Minister for Highways—
THE HON. P. D. HILLS, M.L.A.

Minister for Health—
THE HON. W. F. SHEAHAN, Q.C., M.L.A.

Minister for Child Welfare and Minister for Social Welfare—
THE HON. F. H. HAWKINS, M.L.A.

Minister for Transport—
THE HON. A. G. ENTICKNAP, M.L.A.

Minister for Housing and Minister for Co-operative Societies—
THE HON. A. LANDA, M.L.A.

Minister for Conservation—
THE HON. E. WETHERELL, M.L.A.

Minister for Agriculture—
THE HON. R. B. NOTT, M.L.A.

Minister for Labour and Industry—
THE HON. J. J. MALONEY, M.L.C.

Minister for Mines—
THE HON. J. B. SIMPSON, M.L.A.

Minister for Lands—
THE HON. J. M. A. MCMAHON, M.L.A.

Minister for Public Works—
THE HON. P. N. RYAN, M.L.A.

Assistant Minister—
THE HON. N. J. MANNIX, M.L.A.

VICTORIA.

Governor—GENERAL SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., K.C.M.G., K.C.V.O., D.S.O., K.St.J.

Ministry (from 7th June, 1955).

(Portfolios as from 8th July, 1958.)

Premier, Treasurer and Minister for Conservation—
THE HON. H. E. BOLTE, M.P.

Chief Secretary and Attorney-General—
THE HON. A. G. RYLAH, E.D., M.P.

Minister of Transport and a Vice-President of the Board of Land and Works—
THE HON. SIR ARTHUR WARNER, M.L.C.

Minister of Agriculture and a Vice-President of the Board of Land and Works—
THE HON. G. L. CHANDLER, C.M.G., M.L.C.

Commissioner of Public Works and a Vice-President of the Board of Land and Works—
THE HON. SIR THOMAS MALTBY, E.D., M.P.

Minister of Health—
THE HON. E. P. CAMERON, M.L.C.

Minister of Water Supply and Minister of Mines—
THE HON. W. J. MIBUS, M.P.

Minister of Education—
THE HON. J. S. BLOOMFIELD, M.P.

Minister of Housing and Minister of Immigration—
THE HON. H. R. PETTY, M.P.

Commissioner of Crown Lands and Survey, Minister of Soldier Settlement and President of the Board of Land and Works—
THE HON. K. H. TURNBULL, M.P.

Minister of Labour and Industry and Minister of Electrical Undertakings—
THE HON. G. O. REID, M.P.

Minister for Local Government—
THE HON. M. V. PORTER, M.P.

Minister of Forests and Minister of State Development—
THE HON. A. J. FRASER, M.C., M.P.

Minister without Portfolio—
THE HON. L. H. S. THOMPSON, M.L.C.

GOVERNORS AND STATE MINISTERS—*continued*

QUEENSLAND.

Governor—COLONEL SIR HENRY ABEL SMITH, K.C.V.O., D.S.O.

Ministry (from 12th August, 1957).

Premier and Chief Secretary; and Vice-President of the Executive Council—
THE HON. G. F. R. NICKLIN, M.M., M.L.A.

Minister for Labour and Industry—
THE HON. K. J. MORRIS, M.L.A.

Minister for Education—
THE HON. J. C. A. PIZZEY, M.L.A.

Minister for Justice and Attorney-General—
THE HON. A. W. MUNRO, M.L.A.

Treasurer and Minister for Housing—
THE HON. T. A. HILEY, M.L.A.

Minister for Development, Mines and Main Roads—
THE HON. E. EVANS, M.L.A.

Minister for Public Lands and Irrigation—
THE HON. A. G. MÜLLER, M.L.A.

Minister for Health and Home Affairs—
THE HON. H. W. NOBLE, M.L.A.

Minister for Agriculture and Stock—
THE HON. O. O. MADSEN, M.L.A.

Minister for Public Works and Local Government—
THE HON. J. A. HEADING, C.M.G., M.L.A.

Minister for Transport—
THE HON. G. W. W. CHALK, M.L.A.

SOUTH AUSTRALIA.

Lieut.-Governor—THE HON. SIR JOHN MELLIS NAPIER, K.C.M.G.

*Ministry (from 15th May, 1944).**(Portfolios as from 14th May, 1958.)*

Premier, Treasurer and Minister of Immigration—
THE HON. SIR THOMAS PLAYFORD, G.C.M.G., M.P.

Chief Secretary, Minister of Health and Minister of Mines—
THE HON. SIR LYELL MCEWIN, K.B.E., M.L.C.

Attorney-General and Minister of Industry and Employment—
THE HON. C. D. ROWE, M.L.C.

Minister of Lands, Minister of Repatriation and Minister of Irrigation—
THE HON. SIR CECIL S. HINCKS, M.P.

Minister of Works and Minister of Marine—
THE HON. G. G. PEARSON, M.P.

Minister of Agriculture and Minister of Forests—
THE HON. D. N. BROOKMAN, M.P.

Minister of Education—
THE HON. B. PATTINSON, M.P.

Minister of Local Government, Minister of Roads and Minister of Railways—
THE HON. N. L. JUDE, M.L.C.

WESTERN AUSTRALIA.

Governor—LIEUT.-GENERAL SIR CHARLES GAIRDNER, K.C.M.G., K.C.V.O., K.B.E., C.B.

Ministry (from 2nd April, 1959).

Premier, Treasurer and Minister for Tourists—
THE HON. D. BRAND, M.L.A.

Deputy Premier, Minister for Education and Electricity and Attorney-General—
THE HON. A. F. WATTS, C.M.G., M.L.A.

Minister for Industrial Development, Railways and the North West—
THE HON. C. W. M. COURT, O.B.E., M.L.A.

Minister for Agriculture—
THE HON. C. D. NALDER, M.L.A.

Minister for Works and Water Supplies—
THE HON. G. P. WILD, M.B.E., M.L.A.

Minister for Mines and Housing—
THE HON. A. F. GRIFFITH, M.L.C.

Minister for Lands, Forests and Immigration—

THE HON. W. S. BOVELL, M.L.A.
Minister for Transport, Police, Labour and Native Welfare—

THE HON. C. C. PERKINS, M.L.A.
Chief Secretary and Minister for Health and Fisheries—

THE HON. R. HUTCHINSON, D.F.C., M.L.A.

Minister for Local Government, Town Planning and Child Welfare—
THE HON. L. A. LOGAN, M.L.C.

GOVERNORS AND STATE MINISTERS—*continued.*

TASMANIA.

Governor—THE RT. HON. THOMAS GODFREY POLSON, BARON ROWALLAN K.T., K.B.E., M.C., T.D.

Ministry (from 12th May, 1959).

<i>Premier, Treasurer and Minister for Mines—</i>	<i>Chief Secretary and Minister administering the Department of Health Services—</i>
THE HON. E. E. REECE, M.H.A.	THE HON. J. F. GAHA, M.H.A.
<i>Deputy Premier and Attorney-General—</i>	<i>Minister for Forests, Tourists and Immigration—</i>
THE HON. R. F. FAGAN, M.H.A.	THE HON. A. C. ATKINS, M.H.A.
<i>Minister for Agriculture—</i>	<i>Minister for Transport—</i>
THE HON. J. J. DWYER, V.C., M.H.A.	THE HON. J. B. CONNOLLY, M.L.C.
<i>Minister for Lands and Works—</i>	<i>Minister for Housing, Licensing and Police—</i>
THE HON. D. A. CASHION, M.H.A.	THE HON. J. L. MADDEN, M.H.A.
<i>Minister for Education—</i>	
THE HON. W. A. NEILSON, M.H.A.	

4. **Leaders of the Opposition, Commonwealth and State Parliaments.**—The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in March, 1960.

Leader of the Opposition, Commonwealth and State Parliaments—

Commonwealth—The Hon. A. A. Calwell, M.P.

New South Wales—R. W. Askin, M.L.A.

Victoria—The Hon. C. P. Stoneham, M.P.

Queensland—The Hon. J. E. Duggan, M.L.A.

South Australia—M. R. O'Halloran, M.P.

Western Australia—The Hon. A. R. G. Hawke, M.L.A.

Tasmania—The Hon. W. A. Bethune, M.H.A.

5. **The Course of Legislation.**—The actual legislation by the Commonwealth Parliament up to the end of 1957 is indicated in alphabetical order in "The Acts of the Parliament of The Commonwealth of Australia passed during the year 1957, in the Second Session of the Twenty-second Parliament of the Commonwealth, with Tables, Appendix and Index".

A "Chronological Table of Acts passed from 1901 to 1957 showing how they are affected by subsequent legislation or lapse of time" is also given, and, further, "A table of Commonwealth Legislation passed from 1901 to 1957 in relation to the several provisions of the Constitution", is furnished. Reference should be made to these for complete information.

6. **Legislation during 1958.**—The following paragraphs present a selection from the legislative enactments of the Commonwealth Parliament during the year 1958. The acts included have been selected as the more important new measures and amending measures enacted during the year. The selection is somewhat arbitrary, however, because of the task of determining, in view of the limitations on space that might reasonably be allotted, the relative importance of the acts passed. Certain principles regulating the choice of acts

have nevertheless been generally observed. Ordinary appropriation and loan acts are excluded, as are also acts relating to less important changes in existing forms of taxation, in superannuation and pension schemes, and in workers' compensation. Acts providing for minor amendments to existing statutes and continuance acts are similarly excluded.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. About 17 Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939 and 101 in 1958.

In Official Year Book No. 40 (*see* pp. 66–70), and previous Year Books, similar information was published for the principal legislative enactments of State Parliaments.

Commonwealth Legislation Passed in 1958.—Airlines Equipment Act 1958 (No. 70 of 1958). Amends the Australian National Airlines Act 1945–1956 (as to the Commission's power to borrow). Prescribes a method whereby the Minister may determine the maximum aircraft capacity required by the Australian National Airways Commission and by Ansett Transport Industries Limited, and may fix the amount of aircraft capacity to be used by the Commission and the company. No aircraft can be obtained or used without the Minister's approval. It also allows the Treasurer to guarantee certain loans for the purchase of certain specified aircraft.

Atomic Energy Act 1958 (No. 1 of 1958). Amends the provisions of the Atomic Energy Act 1953 relating to the constitution of the Australian Atomic Energy Commission, the resignation and vacation of office of members of the Commission, the finances of the Commission and the annual report of the Commission.

Cellulose Acetate Flake Bounty Act 1958 (No. 64 of 1958). Amends the Cellulose Acetate Flake Bounty Act 1956 by empowering the Governor-General to declare by Proclamation that a period commencing on 1st July, 1958, is a year to which the Act applies.

Christmas Island Act 1958 (No. 41 of 1958). Accepts Christmas Island as a Territory under the authority of the Commonwealth and provides for the continuance of existing laws; for the power of the Governor-General to legislate by Ordinance for the peace, order and good government of the Territory and for the tabling of Ordinances in Parliament; for the establishment of the Supreme Court of Christmas Island, for appeals therefrom to the High Court and for the establishment by Ordinance of other Courts; for the right of certain residents to elect to become Australian citizens; for the exemption from customs duties of goods produced or manufactured in the Territory and imported into Australia and not, if produced in Australia, subject to duties of excise; for the granting by the Governor-General acting with the advice of the Minister, of pardons or reduction of sentences or fines imposed upon convicted persons; and for the continuance, unless otherwise provided by Ordinance, of the legal currency previously used as legal tender in the Territory.

Christmas Island Agreement Act 1958 (No. 69 of 1958). Repeals Christmas Island Agreement Act 1949 and ratifies the agreement between the Government of Australia and that of New Zealand, made on 13th September, 1958, as to their shared participation in the phosphate production of the Island and as to continuance of the Christmas Island Phosphate Commission, which is not to enjoy immunity of the Crown in right of the Commonwealth of Australia or of New Zealand, but which is exempted from taxation.

Civil Aviation (Damage by Aircraft) Act 1958 (No. 81 of 1958). Provides that the Rome Convention, which is set out in the Schedule to the Act, shall have the force of law in Australia and shall bind the Crown in right of the States and of the Commonwealth. It provides

for procedures whereby Court orders can be obtained for the hearing of all actions arising out of the incident to be heard in the one Court and for the consolidation of those actions. It also provides for liability for damages in respect of a death arising from an incident, and for evidentiary and jurisdictional matters.

Conciliation and Arbitration Act 1958 (No. 30 of 1958). Amends the Conciliation and Arbitration Act 1904–1956 to provide for the appointment of an Acting President, or an Acting Deputy President, of the Commission; to provide for members of the Commission to have the same protection and immunity as a Judge of the Commonwealth Industrial Court; to provide for the continuation of hearings when the Commission as constituted at the original hearing cannot be further so constituted; to provide for references by, and appeals from, the Registrar to the Commission; to provide for references of questions of law by the Registrar to the Court; to provide new requirements as to the rules of an organization; and to provide new provisions relating to the cancellation of the registration of organizations.

Copper Bounty Act 1958 (No. 78 of 1958). Provides that a bounty is payable out of the Consolidated Revenue Fund at a rate determined by the Minister and based upon the price of electrolytic copper wire from overseas, the bounty to be reduced where profits (including the bounty payable at the normal rate) exceed 10 per cent. The bounty is not payable on the quantity of refined copper sold in Australia by the producer in excess of his fair share of the Australian market.

Cotton Bounty Act 1958 (No. 24 of 1958). Amends the Cotton Bounty Act 1951–1957 by extending the period of operation of the Act from 1958 to 1963.

Dairy Produce Export Control Act 1958 (No. 74 of 1958). Amends the Dairy Produce Export Control Act 1924–1954 by providing that one more member shall be included in the Australian Dairy Produce Board and shall be appointed by the Board, while the member appointed to represent the Commonwealth Government shall be chairman of the Board. Minor amendments are made as to the constitution of the Board, the staff of the Board, the finances of the Board and the annual report by the Board.

Dairy Produce Levy Act 1958 (No. 75 of 1958). Imposes a levy on all dairy produce manufactured in Australia on or after a date to be fixed by the Minister upon the recommendation of the Australian Dairy Produce Board. Separate rates of levy for butter and cheese may be prescribed, but the rate of levy shall not exceed three sixteenths ($\frac{3}{16}$) of a penny per pound. The levy is payable by the manufacturer.

Dairy Produce Research and Sales Production Promotion Act 1958 (No. 73 of 1958). Establishes a Dairy Produce Research Trust Account and a Dairy Produce Sales Promotion Fund. The trust monies are to be applied in research, training and publication in relation to scientific, economic or technical matter connected directly or indirectly with the production or distribution of dairy produce. The Dairy Produce Sales Committee is to submit to the Australian Dairy Produce Board (constituted by the Dairy Produce Export Control Act 1924–1958) proposals as to the expenditure of the trust monies, and the Board may submit recommendations to the Minister.

The Board may also administer and apply the Fund, which is obtained through the levy imposed under the Dairy Produce Levy Act 1958, and may make arrangements or take action to promote the sale of dairy produce in Australia and expand markets.

Income Tax and Social Services Contribution Act 1958 (No. 56 of 1958). Imposes income tax and social services contributions at the rates set out in the Schedules, to be levied and paid for the financial year commencing 1st July, 1958, the rates being the same as those imposed for the year commencing on 1st July, 1957.

Income Tax and Social Services Contribution Assessment Act 1958 (No. 55 of 1958). Amends the Income Tax and Social Services Contribution Assessment Act 1936-1957 by including fishing, pearl-fishing and shell-fishing in the definition of "primary production" in the Act. It also provides for depreciation as an allowable deduction in the case of plant used for pearl fishing, and it makes other provisions relating to the special depreciation allowance for primary producers. It makes expenditure by primary producers in the Territory of New Guinea (as well as in Australia) an allowable deduction under Section 75. It also introduces a section providing that under specified circumstances moneys paid by taxpayers on shares in companies mining or prospecting for petroleum are allowable deductions from their assessable incomes. It amends the provisions of the Act relating to deductions allowable to residents of isolated areas and to members of the Defence Force serving overseas.

Income Tax (International Agreements) Act 1958 (No. 25 of 1958). Amends the provisions of the Income Tax (International Agreements) Act 1953 relating to the ascertainment of Australian tax payable on dividends and by providing that the provisions of the agreement made between the Government of Australia and the Government of Canada for the avoidance of double taxation and the prevention of fiscal evasion, a copy of which is set out in the new Third Schedule to the Act shall have the force of law.

Loan (Australian National Airlines Commission) Act 1958 (No. 71 of 1958). Approves the borrowing by the Treasurer of up to 3,000,000 dollars from the United States of America in accordance with the Loan Agreement dated 10th September, 1958, between the Commonwealth and certain American banks. The Agreement is set out in the Schedule to the Act. The moneys borrowed are to be applied for the purchase of a Lockheed Electra aircraft for the Australian National Airlines Commission. The National Debt Sinking Fund Act 1923-1950 is not to apply to moneys borrowed under the Agreement.

Loan (Qantas Empire Airways Limited) Act 1958 (No. 72 of 1958). Authorizes the borrowing by the Commonwealth of up to 13,000,000 dollars from the Chase Manhattan Bank upon the security of promissory notes issued by the Commonwealth which are to form part of the agreement between the Commonwealth and the Bank dated 17th June, 1958. The Agreement is set out in the Schedules. The loan moneys are to be applied by the Commonwealth toward the purchase of five Lockheed Electra aircraft pursuant to an agreement between Qantas Empire Airways Limited and the Commonwealth. The National Debt Sinking Fund Act 1923-1950 is not to apply to the moneys borrowed under the Agreement.

Migration Act 1958 (No. 62 of 1958). Repeals the Immigration Act 1901-1949, the Pacific Island Labourers Act 1901-1906, the Aliens Deportation Act 1948, portions of the War Precautions Act Repeal Act 1920-1955, and the Emigration Act 1910.

It provides that immigrants entering Australia without entry permits, or remaining in Australia after the expiration of temporary entry permits, are prohibited immigrants and as such are liable to be deported. Temporary entry permits may be granted upon conditions, and may be cancelled at any time by the Minister in his absolute discretion. Visas shall not be deemed to be entry permits.

The Minister may order the deportation of an alien where the alien has been convicted in Australia of a crime of violence against the person or of extortion by force or threat, or has been convicted in Australia of an offence for which he has been sentenced to imprisonment for one year or longer (Section 12).

The Minister may order the deportation of an immigrant where, within five years of the immigrant's entry into Australia, he—

- (a) has been convicted of an offence punishable by death or by imprisonment for one year or longer;
- (b) has been convicted of an offence associated with prostitution; or
- (c) is an inmate of a mental hospital or public charitable institution.

(Section 13.)

The Minister may also order the deportation of an alien where it appears to him that the conduct of the alien has been such that he should not be allowed to remain in Australia (Section 14 (1)).

The Minister may order the deportation of an immigrant who has entered Australia not more than five years previously where it appears to him—

- (a) that the immigrant's conduct is such that he should not be allowed to remain in Australia;
- (b) that the immigrant advocates the overthrow by violence of established government or of all forms of law, or, advocates anarchy or assassination or the unlawful destruction of property, or is a member of an organization advocating such.

(Section 14 (2)).

A deportation order may not be made by the Minister under sections 14 (1) and 14 (2) of the Act where the alien or immigrant has requested within 30 days of receiving notice from the Minister that his case be considered by an independent Commissioner and the Commissioner has not found that the ground specified by the Minister for the deportation order is established (Section 14).

The Act also provides for the deportation of prohibited immigrants (including deserting sailors), for the manner of their detention, for their right to be heard by an independent prescribed authority within forty-eight hours after the arrest, and for the prescribed authority's power to direct the release of a person arrested as a prohibited immigrant or as a person against whom a deportation order has been made if the authority is not satisfied that there are reasonable grounds for supposing respectively that the person is a prohibited immigrant or a deportee.

It is an offence for the master, owner, agent or charterer of a ship or aircraft to allow a prohibited immigrant to land in Australia, or to refuse to transport deportees overseas when required to do so.

It is an offence for a person for reward to arrange the passage of an intending immigrant or to make representations to any Commonwealth authority with a view to the entry of an immigrant, unless that person has within thirty days of making written application to the Secretary of the Department of Immigration received a written acknowledgement of receipt of the notice. Immigration agents may be directed not to act at any time. No person shall describe himself by words suggesting that he is registered or approved to act as an immigration agent. The maximum charges for services by an immigration agent may be prescribed by regulations made under the Act.

The Act also provides that:—

- (a) it is an offence to take a child out of Australia without the written consent of the party who by an Australian court order is entitled to custody of the child, or who has instituted proceedings for such an order; and
- (b) aboriginals not subject to legal disabilities may leave Australia without the Minister's consent.

The Act differs chiefly from the repealed Immigration Act 1901–1949 in that—

- (a) the requirements previously enforced by the machinery of dictation tests are now enforced by the granting or withholding of entry permits;
- (b) new provisions are made relating to the rights and remedies of persons alleged to be prohibited immigrants or deportees, and relating to the machinery of deportation;
- (c) there is now no express provision corresponding directly to section 8AA of the repealed Act (making participation in an industrial dispute a ground for deportation); and
- (d) new provisions are made in relation to immigration agents.

Nationality and Citizenship Act 1958 (No. 63 of 1958). Amends the Nationality and Citizenship Act 1948–1955. Re-defines “protected person” and the meaning of “British subject” under section 7. Repeals section 20 (Australian citizenship originally gained by registration or naturalization lost through continuous residence outside Australia and New Guinea for seven years or more), without inserting any corresponding section. Re-enacts section 23 (citizenship of a child where parent has lost Australian citizenship). It also amends the provisions as to false declarations and as to the citizenship of a child whose parent has lost British nationality.

National Health Act 1958 (No. 68 of 1958). Amends the National Health Act 1953–1957 by providing for the establishment of special accounts by registered organizations; for the crediting of the amounts of contribution of contributors who have attained 65 years to special accounts; for crediting to special accounts of amounts of contribution where the contributors are chronically ill and their claims for fund benefit have been disallowed or only met at a rate below the standard rate payable in normal cases by the registered organization; for certain rules that registered organizations must make in relation to their special accounts; for the keeping of records relating to special accounts; and for the reimbursement by the Commonwealth of amounts standing to the debit of the special account.

It also inserts a provision (section 18A) whereby Commonwealth benefit is not payable to contributors of not more than two months' standing. It also amends sections 30 and 64 (relating to fraudulent offences against the Act).

Navigation Act 1958 (No. 36 of 1958). Amends the provisions of the Navigation Act 1912–1956 relating to the interpretation and application of the Act; the complement of ships' officers and crew to be carried on ships; certificates of competency of ships' officers; the supplying and engagement of seamen and apprentices; the rating of seamen; agreements by seamen; the discharge of seamen; the making of allotments by seamen; the payment of seamen's wages; offences by seamen and the punishment for those offences; the provisioning of ships; the medical care of seamen; seamen left on shore; seamen deceased abroad; the relief and maintenance of distressed seamen; the searching of ships; the official log-book and engine room log-book; offences by the master, owner or agent of the ship; compasses; the making of regulations providing for the stowage of bulk cargo and ballast; the liability of Commonwealth Naval Vessels under sections 259, 260 and 261 (which provide for a proportional sharing of liability for damages when damage, loss or personal injuries are caused by the fault of more than one vessel); the master's obligation to render assistance to ships or aircraft in distress; the repeal of the provisions relating to the registration of private signals; the notification to the Minister of the loss of a ship; offences by passengers; the granting of permits and licences to ships to engage in coasting trade; the salvaging of shipwrecks; salvage claims by and against the Crown; the limitation of liability in respect of Government ships; Courts of Marine Inquiry, their powers and offences in relation to them;

proceedings against the Crown; the master's duty to log and report births, deaths and marriages; the membership of the Marine Council; the calculation of nominal horsepower (in Schedule I); the scale of crew in steam ships other than river and bay ships (in Schedule II); and the repeal of Schedule III.

Overseas Telecommunications Act 1958 (No. 26 of 1958). Amends the provisions of the Overseas Telecommunications Act 1946–1952 relating to the remuneration payable to members of the Overseas Telecommunications Commission, the resignation by, vacation of office of, and the leave of absence that may be granted to, members of the Commission, the appointment of officers, the creation, abolition and reclassification of positions. It inserts in the Act—

- (a) a new section that makes it an offence for a person who is or has been employed by the Commission to divulge the contents of telecommunications; and
- (b) a new Part dealing with the finances of the Commission.

Railway Standardization (New South Wales and Victoria) Agreement Act 1958 (No. 83 of 1958). Approves the agreement between the Commonwealth and the States of New South Wales and Victoria which is set out in the Schedule whereby the Commonwealth and the States are to share in the expense of the conversion of the Melbourne-Albury railway line (which meets the terminal of the Albury-Sydney line) from its present gauge of 5 ft. 3 in. to 4 ft. 8½ in. (so as to conform in gauge with, and be linked directly to, the Albury-Sydney line). The parties are to collaborate in the preparation of plans and specifications. The Commonwealth is to bear fourteen twentieths of the expense and each State three twentieths.

Re-establishment and Employment Act 1958 (No. 7 of 1958). Repeals Part X. of the Re-establishment and Employment Act 1945–1956 (the Part which affected the operation of mortgages, legal proceedings, and the War Service Moratorium Regulations) and enacts provisions consequential on the repeal of that Part relating to postponed payments under mortgages, the continuation of certain proceedings, the cessation of suspension of execution, and the operation of any Statute of Limitations.

Re-establishment and Employment Act (No. 2) 1958 (No. 52 of 1958). Amends the Re-establishment and Employment Act 1945–1958 by providing that the provisions giving preference in employment to former members of the Forces and other persons entitled to preference (sections 24–33 inclusive) shall cease to operate at midnight on 30th June, 1960.

Repatriation Act 1958 (No. 47 of 1958). Amends the Repatriation Act 1920–1957 by providing for supplementary assistance to service pensioners and alters the definition of "income" in section 83 so as to be consistent with the amended definition introduced by the Social Services Act 1958.

River Murray Waters Act 1958 (No. 82 of 1958). Ratifies and approves the agreement between the Commonwealth and the States of New South Wales, Victoria and South Australia set out in the Schedule to the Act and amending the previous agreement between the parties (which is set out, as previously amended, in the five Schedules to the River Murray Waters Act 1915–1954).

Snowy Mountains Hydro-electric Power Act 1958 (No. 31 of 1958). Amends the Snowy Mountains Hydro-electric Power Act 1949–1956 by inserting a provision approving the Agreement and the Supplemental Agreement made between the Commonwealth, New South Wales and Victoria, copies of which are set out in the Schedules to the Act and by inserting a provision that nothing in the Act shall affect the rights of the State of South Australia under the agreements set out in the Schedules to the River Murray Waters Act 1915–1954. It amends the provisions of the Act relating to the proclamation of the Snowy Mountains Area; the duties and powers of the Snowy Mountains Hydro-electric Authority; and the provisions of the Act relating to the finances of the Authority. It inserts a new Part requiring the Authority to furnish to the Minister annual reports for submission to Parliament.

Social Services Act 1958 (No. 44 of 1958). Amends the Social Services Act 1947–1957. It excludes moneys derived from brothers and sisters of age or invalid pensioners from the definition of "income" in Part III of the Act. It increases the minimum value of property

at which an age or invalid pensioner will not be granted a pension from £1,750 to £2,250, and provides for supplementary assistance under certain circumstances for age, invalid and widows' pensioners paying rent and being entirely dependent upon their pension. It also alters the incomes and the rates at which the pensions of Class B and Class D widows are reduced. It amends the definition of "income" in section 106 of the Act (dealing with sickness benefits).

States Grants (Universities) Act 1958 (No. 27 of 1958). Repeals the States Grants (Universities) Act 1955 and the States Grants (Universities) Act 1956 and amends the States Grants (Universities) Act 1957 by omitting the provisions that provided for the grant of financial assistance in respect of the year 1958, by providing that for the purposes of the application of the 1957 Act in respect of the year 1957 the South Australian School of Mines and Industries shall be regarded as a University to the extent that it has received State grants in respect of courses recognized by the University of Adelaide for the purposes of that University's degree courses, and by providing for payment of financial assistance to the State of South Australia in respect of grants to the School. It provides, subject to the conditions specified in the Act, for the grant of financial assistance to the States, in respect of each of the years 1958, 1959 and 1960, of the respective amounts specified in the Schedules to the Act. The conditions specified in the Act require the respective amounts to be applied for recurrent expenditure, teaching and administrative costs of residential colleges, expenditure on University buildings and residential college buildings.

Stevedoring Industry Charge Act 1958 (No. 4 of 1958). Amends the Stevedoring Industry Charge Act 1947-1957 by altering the rate of stevedoring industry charge to—

- (a) in respect of employment from 1st April, 1958, to 1st July, 1959—Three shillings for every man-hour of employment; and
- (b) in respect of employment after 1st July, 1959—Two shillings and sixpence for every man-hour of employment.

Tariff Board Act 1958 (No. 14 of 1958). Amends the provisions of the Tariff Board Act 1921-1953 relating to the constitution of the Tariff Board, the appointment of acting members of the Board, the appointment of the chairman of the Board, the duties of the chairman, the power of the chairman to delegate his powers and functions, the salary and allowances of members of the Board, the leave that may be granted to members of the Board, and the meetings of the Board.

Tractor Bounty Act 1958 (No. 65 of 1958). Amends the Tractor Bounty Act 1939-1956 by empowering the Governor-General to proclaim a further period from 24th October, 1958, and lasting not longer than 30th June, 1959, as a period to which the Act applies.

Tradesmen's Rights Regulation Act 1958 (No. 53 of 1958). Amends the provisions of the Tradesmen's Rights Regulation Act 1946-1955 relating to the granting of tradesmen's certificates by Local Committees, the powers of the Central Committee, and the recognition of tradesmen trained in the Defence Force.

Western Australia Grant (Northern Development) Act 1958 (No. 28 of 1958). Empowers the Treasurer to grant to the State of Western Australia in the course of the period of 5 years from 1st July, 1958, any sum or sums out of the Consolidated Revenue Fund not exceeding in aggregate £2,500,000, in pursuance of a project in relation to the development of the northern part of Western Australia, provided that the project is submitted to and approved by the Treasurer and provided that it is such as could not reasonably be expected to be carried out during the period by the State without assistance.

Wheat Export Charge Act 1958 (No. 59 of 1958). Repeals the Wheat Export Charge Act 1954 but saves its operation in relation to wheat harvested before 1st October, 1958. It imposes an export charge on wheat and wheat products exported between 1st October, 1958, and 1st October, 1963, where, in any particular season, the average price per bushel obtained for all wheat exported exceeds the guaranteed price. The rate of charge per bushel is to be an amount equal to the excess of the average price over the guaranteed price, but is not to be more than 1s. 6d.

Wheat Acquisition (Undistributed Moneys) Act (No. 29 of 1958). Provides for the payment of undistributed moneys from the Undistributable Fractions Account kept by the Australian Wheat Board to the Commonwealth which in turn is to pay these amounts into the Wheat Research Trust Account established by the Wheat Research Act 1957 for crediting to the accounts of the States in accordance with the Schedule to the Act.

Wheat Industry Stabilization Act 1958 (No. 58 of 1958). Repeals the *Wheat Industry Stabilization Act 1954*, but saves its operation in relation to wheat harvested before 1st October, 1958. It continues in existence the Australian Wheat Board for the purposes of the Act and provides for its membership and powers. The Board may purchase wheat, sell or dispose of wheat, accept wheat given to it, grist wheat, and sell or dispose of the products of gristing. It gives the Board power to approve or disapprove the selling of wheat by persons possessing wheat in the Australian Capital Territory harvested on or after 1st October, 1958, to buy and sell wheat on behalf of such persons or to arrange for the buying and selling, to demand returns as to the quantity of wheat grown, to authorize the seizure of wheat or corn sacks—together with books, documents and accounts relating to the sacks—and to prosecute for offences against the Act. It prescribes the method whereby the Board shall determine the amount payable by it to persons who have delivered wheat to it. It continues in existence the Wheat Prices Stabilization Fund as a trust account, out of which the surplus amount of the Fund exceeding £20,000,000 is to be paid to the Board and after the deductions authorized by the Act is to be distributed among the persons who have delivered wheat to the Board. Provision is made that the operation of State laws relating to the stabilization of the Wheat Industry shall not be affected by the Act.

§ 4. Commonwealth Government Departments.

Official Year Book No. 37 contains, on pages 76–86, a list of the Commonwealth Government Departments as at 31st March, 1947, showing details of the matters dealt with by each Department, and the Acts administered by the Minister of each Department, and Year Book No. 39 contains, on pages 100–1, a description of major changes in Departmental structure from 1947 to 1951. Apart from the structural changes and transfers of functions described therein, there are several Departments which, in the interval between 1947 and 1956, were developed to cope with changing circumstances affecting the particular Department. The Prime Minister's Department, the Department of Immigration, and the Department of Social Services were among those whose organizations were thus altered. On page 81 of Official Year Book No. 43, details were shown of a major re-organization, in January, 1956, of the functions of the Departments of Commerce and Agriculture and Trade and Customs, resulting in the creation of the Departments of Trade, Customs and Excise, and Primary Industry. The reference to the Department of Trade's control of statutory marketing boards appearing in that issue should have been omitted, as this function was assumed by the Department of Primary Industry at the re-organization. In April, 1958, the Departments of Supply and Defence Production were amalgamated under the name of Department of Supply, consequent on the report of the Morshead Committee on the organization of the Defence group of Departments.

§ 5. Cost of Parliamentary Government.

The tables in this section are intended to represent the expenditure incurred in the operation of the Parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; they do not attempt to cover the expenditure on Commonwealth and State administration generally.

Comparison between individual items should be made with caution because of differences in accounting and presentation.

The following statement shows this expenditure for the Commonwealth and for each State, as well as the cost per head of population, for the year ended 30th June, 1958. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item, "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1957-58.

(£.)

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
1. Governor-General or Governor(a)—								
Governor's salary	10,000	6,000	7,500	2,867	13,500	4,750	4,000	48,617
Other salaries	13,977	32,297	8,758	9,986	7,835	4,932	18,887	96,672
Other expenses, including main- tenance of house and grounds	(b) 6,566	14,364	49,394	24,775	8,865	27,748	12,048	143,760
Total	30,543	52,661	65,652	37,628	30,200	37,430	34,935	289,049
2. Official Establishments	158,009							158,009
3. Ministry—								
Salaries of Ministers	68,042	70,370	21,636	41,178	28,653	13,900	8,646	252,425
Oversea conferences, etc. ..	27,920	(c)				1,907	2,942	27,920
Travelling expenses	26,175	(c)	1,298	(c)	(c)	6,294	19,520	32,322
Other		2,283		(c)	(c)			28,097
Total	122,137	72,653	22,934	41,178	28,653	22,101	31,108	340,764
4. Parliament—								
A. Upper House:								
President and Chairman of Committees	2,900	3,800	1,215		2,800	5,752	} 35758	440,706
Allowance to members ..	185,135	28,967	74,716		30,950	68,713		
Railway passes(d)	2,530	23,510	(e) 9,000		1,624	8,573		
Oversea conferences, etc. ..	4,745							
Other travelling expenses ..	f 17,747					(g)		
Postage for members					337	1,275		1,612
B. Lower House:								
Speaker and Chairman of Committees	2,900	4,600	1,005	5,592	5,050	5,055	} 63867	1,153,658
Allowance to members ..	381,899	204,196	145,464	154,862	62,543	116,625		
Railway passes (d)	5,810	43,061	(h)	11,525	3,168	13,631		
Oversea conferences, etc. ..	12,806							
Other travelling expenses ..	f 34,452	2,400		17,195	(e) 1,714			
Postage for members		5,647		9,981	819	2,036		18,483
C. Both Houses:								
Government contribution to Members' Superannuation Fund	20,529	10,147	18,632	7,325	8,568	6,770		71,971
Printing—								
Hansard	79,655	18,744	18,858	19,225	7,936	17,539		161,957
Other	68,843	38,522	48,034	9,692	23,176	6,058	12,518	206,843
Reporting Staff—								
Salaries	63,587	30,325	25,907	8,749	24,253	22,286		175,107
Contingencies	4,047	417	500	247	2,819	397		8,427
Library—								
Salaries	45,060	14,939	7,370	6,710	5,415	100		79,594
Contingencies	16,684	4,214	2,000	3,425	1,375	425		28,123
Salaries of other officers ..	329,320	122,920	76,371	25,962	29,465	36,980	22,975	643,993
Oversea conferences, etc. ..	8,311							8,311
Other	j 217,303	4,397	8,513	23,499	14,637	915	1,375	270,639
D. Miscellaneous:								
Fuel, light, heat, power, and water	6,206	4,409	7,263	3,109	7,011	163	} 14297	358,197
Posts, telegraphs, telephones ..	32,233	12,964	863	1,864	3,575	1,069		
Furniture, stores and stationery ..	45,163	6,906	5,362	3,663	13,174	3,588		
Other	k 137,390	17,875	9,824	8,377	6,400	l) 5,449		
Total	172,525	602,960	460,897	321,002	255,095	325,113	154,370	3,844,692
5. Electoral—								
Salaries	400,310	9,059	8,489	19,648	11,343	20,716	11,716	481,281
Cost of elections, contingencies, etc.	211,277	45,668	95,072	118,909	6,003	24,784	9,935	511,648
Total	611,587	54,727	103,561	138,557	17,346	45,500	21,651	992,929
6. Royal Commissions, Select Com- mittees, etc.	14,073		7,761		149	4,112		26,095
Grand Total	2661604	783,001	660,805	538,365	331,443	434,256	242,064	5,651,538
Cost per head of population ..	5s. 6d.	4s. 3d.	4s. 11d.	7s. 8d.	7s. 6d.	12s. 5d.	14s. 6d.	11s. 7d.

(a) Includes Executive Council except in Tasmania, where duties are performed by Chief Secretary's Department. (b) Excludes maintenance of official establishments. (c) Not available separately.

(d) Actual amounts paid to the respective Railway Departments, except in New South Wales and Western Australia, where the amounts shown represent the value of railway passes as supplied by the Railway Departments. (e) Both Houses. (f) While in Canberra. See also (j). (g) Included with Lower House. (h) Included with Upper House. (i) Lower House only.

(j) Conveyance of Members of Parliament and others not elsewhere included. (k) Includes maintenance of Ministers' and Members' rooms, £87,154, and additions, new works, buildings, etc., £28,605.

(l) Includes Ex-Ministers' and Ex-Members' Life Passes (Rail), £3,042.

Figures for total cost and cost per head during each of the years 1953-54 to 1957-58 are shown in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
(£.)								
1953-54 ..	2,072,757	645,505	419,261	452,527	290,110	302,586	175,525	4,358,271
1954-55 ..	2,007,013	710,639	535,939	348,458	281,351	325,772	189,699	4,398,871
1955-56 ..	2,532,246	742,753	586,940	474,515	372,493	451,042	224,940	5,384,929
1956-57 ..	2,455,194	769,125	599,355	417,613	324,848	425,524	238,824	5,230,483
1957-58 ..	2,661,604	783,001	660,805	538,365	331,443	434,256	242,064	5,651,538

PER HEAD OF POPULATION.

(s. d.)								
1953-54 ..	4 8	3 9	3 6	7 0	7 5	9 7	11 4	9 10
1954-55 ..	4 5	4 1	4 4	5 3	7 0	10 0	12 1	9 8
1955-56 ..	5 5	4 3	4 7	7 0	8 11	13 6	14 1	11 7
1956-57 ..	5 2	4 3	4 6	6 1	7 7	12 5	14 8	11 0
1957-58 ..	5 6	4 3	4 11	7 8	7 6	12 5	14 6	11 7

§ 6. Government Employees.

Information concerning the number of employees of Australian Government Authorities may be found in Chapter XII.—Labour, Wages and Prices.

CHAPTER IV.

LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

For descriptions of the land tenure systems of the several States and the internal Territories see Official Year Book No. 4 (pp. 235–333) and subsequent issues, in particular No. 22 (pp. 133–195). Conspectuses of land legislation in force and of the systems of land tenure in the several States have appeared in issues up to and including No. 38, but only a brief summary is given below.

The land legislation in force in the several States may be classified broadly under five major types of land enactments, i.e., Crown lands Acts, Closer Settlement Acts, Mining Acts, Returned Service Personnel Settlement Acts, and Advances to Settlers Acts, but within the groupings there is, of course, a wide variety of individual Acts. In the two internal Territories, the legislation relating to lands is embodied in various ordinances.

In each of the States, there is a Lands Department under the direction of a Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. In the Northern Territory, the Administrator, under the control of the Minister for Territories, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory, the administration of the Leases Ordinances is in the hands of the Minister for the Interior.

In each of the States, there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes. In the Northern Territory, there are several ordinances relative to mining.

As with land legislation, land tenures may be classified under broad headings; these indicate the nature of the tenure and comprise:—Free Grants and Reservations, Unconditional Purchases of Freehold, Conditional Purchases of Freehold, Leases and Licences under Land Acts, Closer Settlement, Leases and Licences under Mining Acts, and Settlement of Returned Service Personnel. For details of the various particular forms of land tenure within these seven groups in each State, see Official Year Book No. 38 (pp. 114–116) and earlier issues. Descriptions of the systems operating in the two internal Territories may be found on pages 329–30 and 338 of Official Year Book No. 39.

The following sections contain figures showing the extent of the different tenures in the several States and Territories, together with some general descriptive matter.

§ 2. Free Grants and Reservations.

1. *New South Wales.*—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three nor more than seven in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During 1957–58, 5,649 acres were permanently reserved or dedicated for miscellaneous recreation reserves and similar purposes. The areas reserved at 30th June, 1958, were as follows:—For travelling stock, 5,124,820 acres; pending classification and survey, 4,251,598 acres; forest reserves 2,339,844 acres; water and camping reserves, 839,340 acres; mining reserves, 1,112,042 acres; for recreation and parks, 346,125 acres; other reserves, 7,104,261 acres; total, 21,118,030 acres.

2. *Victoria.*—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes, if such lands were permanently reserved for public purposes prior to 18th October, 1929.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes.

(iii) *Areas Granted and Reserved.* During 1958, 69 acres were granted without purchase. The areas both temporarily and permanently reserved at the end of 1958 were as follows :—For roads, 1,642,148 acres ; water reserves, 317,591 acres ; agricultural colleges, etc., 8,434 acres ; forest and timber reserves, 5,707,901 acres ; reserves in the mallee, 410,000 acres ; other reserves, 534,350 acres ; total, 8,620,424 acres.

(iv) *Revoking of Agricultural Reservations.* Under the Agricultural Colleges Act 1944, the land on which the agricultural colleges and experimental farms at Longerenong (2,386 acres) and Dookie (6,048 acres) are established was permanently reserved as sites for the purposes of State Agricultural Colleges and the remainder of the land previously reserved has become unalienated for treatment as such under the Lands Act (*see also* § 5, para. 3).

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Acts, land to be used for the purpose of any undertaking under the Acts may be vested in fee simple in the Commissioner of Irrigation and Water Supply.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease them for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Acts, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During 1958, the area granted in fee simple without payment was two acres. 7,714,133 acres were set apart as reserves and reserves cancelled totalled 8,965,596 acres. The areas reserved, including roads, at the end of 1958 were as follows:—Timber reserves, 3,054,527 acres ; for State forests and national parks, 5,910,101 acres ; aboriginal reserves, 6,537,206 acres ; for streets, surveyed roads and stock routes, 3,750,066 acres ; general reserves, 5,632,319 acres ; total, 24,884,219 acres.

4. *South Australia.*—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee simple of such lands, with the exception of foreshores and lands for quays, wharves or landing-places, which are inalienable in fee simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aboriginals, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserves.* During 1957–58, free grants were issued for an area of 140 acres, and reserves comprising 98,726 acres were proclaimed. At 30th June, 1958, the total area of surveyed roads, railways and other reserves was 22,740,307 acres, including 18,807,394 acres set apart as aboriginal reserves.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased by the Governor for periods up to 10 years. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1958, approximately 1,372,124 acres were reserved for various purposes. At 30th June, 1958, the total area reserved was 58,310,017 acres, comprising State forests, 4,169,090 acres, timber reserves, 1,835,856 acres and other reserves 52,305,071 acres.

6. *Tasmania.*—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act 1916, returned soldiers who applied prior to 31st March, 1922, were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to Her Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment may also be reserved.

7. **Northern Territory.**—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of, or contract for, purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the lands so resumed.

(ii) *Areas Reserved.* The total area of reserves at 30th June, 1958, was 47,985,271 acres.

8. **Summary.**—The following table shows the total areas reserved in each State, and the grand totals, for the years 1954 to 1958:—

AREAS RESERVED.
(‘000 Acres.)

	N.S.W. (a)	Victoria. (b)	Q’ld. (b)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	Nor. Terr. (a)	Total.
1954 ..	20,344	8,451	25,873	21,336	52,613	4,070	47,032	179,719
1955 ..	20,865	8,631	25,939	21,863	55,224	4,129	47,544	184,195
1956 ..	21,261	8,634	26,067	21,867	55,629	4,130	47,928	185,516
1957 ..	21,353	8,649	26,097	22,641	56,938	(c)	47,928	d 183,606
1958 ..	21,118	8,621	24,884	22,740	58,310	(c)	47,985	d 183,658

(a) At 30th June.

(b) At 31st December.

(c) Not available.

(d) Excludes Tasmania.

§ 3. Unconditional Purchases of Freehold.

1. **New South Wales.**—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding one-half acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. an acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding ten years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and, if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* In certain circumstances, land may be sold in fee simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money as determined by the local Land Board.

(iv) *Improvement Purchases.* The owner of improvements in land in authorized occupation by residence under any Mining Act or the Western Lands Act of land within a gold-field or mineral field may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 an acre for town lands or £2 10s. an acre for other lands. The area must not exceed one-quarter of an acre within a town or village, or two acres elsewhere, and no person may purchase more than one such area within three miles of a similar prior purchase by him.

(v) *Road Purchases.* Land from roads that are closed may, with certain exceptions, be sold to the owners of adjoining lands at a value determined by the local Land Board.

(vi) *Areas Sold.* During the year ended 30th June, 1958, the total area sold was 2,044 acres, of which 177 acres were sold by auction and eight acres as after auction purchases, while 21 acres were sold as improvement purchases, 1,735 acres as road purchases and 103 acres as special purchases.

2. **Victoria.**—(i) *General.* Lands, not exceeding 100,000 acres in any one year, specially classed for sale by auction, may be sold by auction in fee simple at an upset price of not less than £1 an acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of 12½ per cent. of the whole price; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough area, areas specially classed for sale, isolated pieces of land not exceeding 150 acres in area, and sites for churches or charitable purposes, if not more than three acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas Sold at Auction and by Special Sales.* During 1958, a total of 3,111 acres was disposed of under this tenure, 2,912 acres being country lands and 199 acres town and suburban lands.

3. *Queensland.*—From 1917 to 1929, the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929. This provision was repealed in 1932, but restored again in 1957.

4. *South Australia.*—(i) *Sales by Auction.* The following lands may be sold by auction for cash:—(a) special blocks; (b) Crown lands which have been offered for lease and not taken up within two years; (c) town lands; and (d) suburban lands which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within six years without the consent of the Commissioner. If the Commissioner of Crown Lands so determines, town lands may also be offered at auction on terms and the buyer may, at his option, purchase the lands for cash or on agreement for sale and purchase.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1958, the area of town lands and special blocks sold by auction was four acres. In addition, 97,001 acres were sold at fixed prices, and purchases on credit of 20,665 acres were completed, making a total of 117,670 acres.

5. *Western Australia.*—(i) *Sales by Auction.* Town, suburban and village lands may be sold by auction after being surveyed into lots and notified in the *Gazette*. They may also be disposed of after being exempted from auction or after being passed in at auction. Ten per cent. of the purchase-money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within two years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the year ended 30th June, 1958, the area of town and suburban allotments sold by auction was 426 acres in 249 allotments.

6. *Tasmania.*—(i) *Sales by Auction.* Lands may be sold by auction.

(ii) *After-Auction Sales.* Lands, which, after having been offered at auction, have not been sold, may be sold at the upset price by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or a business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall be determined by valuation, excluding the value of improvements, cost of survey, and of grant deed. The area which may be so purchased must not exceed one-quarter of an acre.

§ 4. Conditional Purchases of Freehold.

1. *General.*—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the *Official Year Book* (see No. 22, pp. 141–9).

2. *New South Wales.*—At 30th June, 1958, the total number of incomplete conditional purchases in existence was 31,804 covering an area of 10,500,220 acres. During 1957–58, applications received for conditional purchases numbered two, with an area of 312 acres, both of which were confirmed; during the year, deeds were issued for 673,015 acres, bringing the total acreage for which deeds had been issued to 36,315,476 at the end of the year. These figures exclude 440 conversions from other tenures comprising 83,779 acres.

3. *Victoria.*—The area purchased conditionally in 1958, excluding selections in the Mallee Country was 20,355 acres, all with residence. The number of selectors was 81. In the Mallee, 3,408 acres were purchased conditionally in 1958. The number of selectors was seven.

4. *Queensland.*—The following selections were made freehold during 1958:—Agricultural farms, 18,773 acres, prickly pear selections, 22,486 acres, and prickly pear development selections, 11,779 acres.

5. *South Australia.*—During 1957–58, 898 acres were allotted under agreements to purchase, comprising Eyre Peninsula Railway Lands, 17 acres, Eyre Peninsula Land Purchase Act lands, one acre, and other Crown lands 880 acres.

6. **Western Australia.**—During the year ended 30th June, 1958, the number of holdings conditionally alienated was 655, all of which were conditional purchases by deferred payments, involving an area of 1,064,168 acres. Under the heading "deferred payments", are included conditional purchases of grazing lands.

In addition, Crown grants were issued during 1957–58 for the following selections, the prescribed conditions having been complied with:—Free homestead farms, 7,156 acres, and conditional purchases, 471,516 acres.

7. **Tasmania.**—During 1957–58, Crown grants were issued for 17,925 acres. The total area sold conditionally was 1,231 acres, comprising selections for purchase, 1,155 acres, and town and suburban allotments, 76 acres. The numbers of applications confirmed were 29 for country selections and 49 for town and suburban allotments.

§ 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories was given in earlier issues of the Official Year Book (*see* No. 22, pp. 149–63).

2. **New South Wales.**—The total area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission and the Western Lands Commission was 114,451,264 acres, of which 78,019,654 acres were held under the Western Lands Act, 28,332,048 acres under perpetual lease and 8,099,562 acres under other forms of lease, licence and permissive occupancy. The following table shows the areas held under various descriptions of leases and licences at 30th June, 1958:—

AREAS OCCUPIED UNDER LEASE OR LICENCE AT 30th JUNE, 1958, NEW SOUTH WALES.(a)
(Acres.)

Particulars.	Area.	Particulars.	Area.
<i>Crown Lands or Closer Settlement Acts</i>		<i>Crown Lands or Closer Settlement Acts—continued.</i>	
Occupational licences	611,882	Suburban holdings	58,922
Conditional leases	10,592,853	Group purchase leases	222,433
Conditional purchase leases	120,021	Irrigation areas	202,354
Settlement leases	2,590,960	Other leases(b)	156,833
Improvement leases	27,898		
Annual leases	388,116	<i>Western Lands Act.</i>	
Scrub leases	4,800	Conditional leases	121,596
Special leases	1,475,181	Perpetual leases	67,736,377
Permissive occupancies	2,141,074	Other long-term leases	9,768,650
Prickly pear leases	89,591	Permissive occupancies	269,308
Crown leases	7,049,915	Leases being issued—occupation	
Homestead farms	4,959,564	licences	91,908
Homestead selections and grants	1,691,697	Preferential occupation licences	31,815
Closer settlement leases	3,002,952		
Settlement purchase leases	1,044,564	Total	114,451,264

(a) Excludes mining leases and permits, forest leases, and occupation permits. (b) Includes leases outside irrigation areas, controlled by the Water Conservation and Irrigation Commission—138,872 acres.

3. **Victoria.**—The area of Crown lands occupied under leases and licences at 31st December, 1958, was as follows:—Grazing licences—other than Mallee, 4,059,075 acres; Mallee, 1,713,087 acres; auriferous lands licences, 2,154 acres; perpetual leases—other than Mallee, 21,468 acres; Mallee, 1,073,608 acres; swamp lands leases, 62 acres; agricultural college lands, 31,650 acres; total, 6,901,104 acres.

4. **Queensland.**—During 1958, the areas taken up consisted of 5,851,520 acres as pastoral leases, 1,771,788 acres as grazing selections and 40,886 acres as perpetual lease selections. The area occupied under lease or licence, excluding mining leases, at the end of 1958 was as follows:—Pastoral leases, 245,290,400 acres; occupation licences, 17,026,880 acres; grazing selections and settlement farm leases, 92,216,652 acres; special purpose leases—Crown land, 493,332 acres; reserves, 1,996,063 acres; perpetual lease (including prickly pear) selections, 6,865,039 acres; auction perpetual leases, 41,350 acres; forest grazing leases (reserves), 751,400 acres; total 364,681,116 acres.

5. **South Australia.**—The total area, including repurchased lands held under lease or licence except mining lease and licence, at 30th June, 1958 was 138,369,761 acres of which pastoral leases, 115,715,484 acres, constituted the major portion.

6. **Western Australia.**—At 30th June, 1958, the total area held under lease or licence issued by the Lands Department amounted to 217,746,033 acres, of which 212,543,504 acres were under pastoral lease.

7. **Tasmania.**—Crown lands leased at 30th June, 1958, for other than mining purposes amounted to 1,503,862 acres of which 1,073,700 acres were leased for pastoral purposes.

8. **Northern Territory.**—At 30th June, 1958, the total area under lease, etc., was 174,398,854 acres of which pastoral leases accounted for 139,469,293 acres and other leases, licences and mission stations, 34,929,561 acres.

9. **Australian Capital Territory.**—Under the terms of the City Area Leases Ordinance 1936–1958, each block is leased for a period of 99 years at a rental of five per cent. per annum of the unimproved capital value as assessed by the Commonwealth. The number of leases granted under this Ordinance to 30th June, 1958, (excluding leases surrendered and determined) was 4,056 representing an unimproved value of £1,725,285. Auction sales of city leaseholds are described in Official Year Book No. 22, page 599. During the year ended 30th June, 1958, 408 leases were granted for residential purposes and 17 for business purposes.

Fifteen leases under the Church Lands Leases Ordinance 1924–1932, which requires the lessees to submit a definite building programme within a specified period, and one lease under the Church of England Lands Ordinance 1926, have been granted for church purposes. A further 32 leases have been granted for either church or scholastic purposes under the various Ordinances.

The total area held under lease and licence for grazing, agricultural, dairying and other purposes (including the Jervis Bay area) amounted to 292,824 acres at 30th June, 1958.

10. **Summary.**—The following table shows particulars of the land held in each State under lease or licence for purposes other than mining and forestry, the total leased or licensed land in the Territories, and the grand totals, for the years, 1954 to 1958:—

**AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING
AND FORESTRY.**
(*000 Acres.)

Year.	N.S.W. (a)	Vic. (b)	Q'land. (b)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	N.T. (a) (c)	A.C.T. (a)(c)(d)	Total.
1954 ..	114,452	6,367	361,657	137,867	202,754	2,576	180,020	323	1,006,016
1955 ..	114,311	6,502	363,870	137,461	204,782	2,487	181,165	321	1,010,899
1956 ..	114,231	6,175	363,093	139,640	212,380	2,466	177,021	314	1,015,320
1957 ..	113,947	5,851	363,473	139,727	212,831	1,576	177,028	296	1,014,729
1958 ..	114,451	6,901	364,681	138,370	217,746	1,504	174,399	293	1,018,345

(a) At 30th June. (b) At 31st December. (c) Leases and licences for all purposes.
(d) Includes Jervis Bay area.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book, (see No. 22, pp. 170–7). The following paragraphs contain particulars of operations during the year 1957–58 or 1958 and of areas occupied at the end of the year, under the various forms of lease, licence, etc., issued for mining purposes.

2. **New South Wales.**—At 30th June, 1958, total areas occupied under Mining Acts were as follows:—Gold-mining, 3,000 acres; mining for other minerals, 203,678 acres; authorities to prospect, 171,017 acres; other purposes, 8,121 acres; total, 385,816 acres.

3. **Victoria.**—During 1958, there were 165 leases and licences granted under Mining Acts, including 17 for gold-mining. Areas occupied at the end of 1958 were as follows:—Gold-mining, 15,081 acres; petroleum prospecting, 2,805,120 acres; coal, 12,822 acres; uranium and radio active minerals, 8,420 acres; other purposes, 6,240 acres; total, 2,847,683 acres.

4. **Queensland.**—During 1958, there were 2,749 miners' rights and two business licences issued. Areas taken up during 1958 totalled 489,950 acres, of which 28,319 acres were for mining for minerals other than gold and 384,000 acres were occupied under petroleum prospecting permits. Total areas occupied at the end of 1958 were as follows:—Gold-mining, 2,180 acres; mining for other minerals, 140,314 acres; miners' homesteads, 428,390 acres; petroleum prospecting, 832,000 acres; coal prospecting, 78,958 acres; total, 1,481,842 acres. The area of land held under lease only was 570,884 acres.

5. **South Australia.**—Areas taken up under Mining Acts during 1957–58 totalled 30,072 acres, including claims, 2,440 acres, mineral and miscellaneous leases, 27,532 acres, and gold leases 100 acres. Total areas occupied at 30th June, 1958 were as follows:—Gold-mining, 668 acres; other mineral and miscellaneous leases, 781,602 acres; claims, 13,561 acres; oil licences, 127,635,200 acres; other purposes, 25 acres; total, 128,431,056 acres.

6. **Western Australia.**—Areas taken up during 1958 under Mining Acts totalled 19,462 acres, including gold-mining, 11,038 acres and mining for other minerals, 7,228 acres. Total areas occupied at the end of 1958 were as follows:—Gold-mining, 28,875 acres; mining for other minerals, 95,995 acres; other purposes, 39,147 acres; total, 164,017 acres.

7. **Tasmania.**—During 1958, the number of leases issued covered 633 acres. Total areas occupied at the end of 1958 were as follows:—Gold-mining, 638 acres; coal-mining, 9,865 acres; mining for other minerals, 22,527 acres; other purposes, 4,464 acres; total, 37,494 acres.

8. **Northern Territory.**—At 30th June, 1958, the number and acreage of holdings under mining leases and tenements were as follows:—Gold-mining leases, 224 (3,622 acres); other minerals leases, 414 (11,649 acres); dredging areas, 11 (2,319 acres); gold and other mineral prospecting areas, 15 (256 acres); business and residence areas, 44 (141 acres); other purposes, 169 (9,146 acres); total, 877 (27,133 acres).

9. **Summary.**—(a) *Mining Leases etc., (other than oil prospecting licences).* The following table shows the total areas occupied under Mining Acts in each State at the end of the years 1954 to 1958:—

AREAS OCCUPIED UNDER MINING ACTS.

(Acres.)

Year.	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (a) (b)	W. Aust. (c)	Tasmania. (b)	Total. (d)
1954 ..	13,053,930	97,041	545,469	775,650	166,378	30,059	14,668,527
1955 ..	8,151,778	55,544	555,996	773,816	159,891	30,408	9,727,433
1956 ..	13,924,407	37,723	570,384	770,618	151,916	33,178	15,488,226
1957 ..	326,932	36,129	587,067	779,881	162,199	37,625	1,929,833
1958 ..	385,816	42,563	649,842	795,856	164,017	37,494	2,075,588

(a) Year ended 30th June. (b) Excludes lands held under miners' rights and dredging claims.
(c) Excludes holdings under miners' rights. (d) Excludes Northern Territory.

(b) *Oil Prospecting Licences.* The following table shows for each year from 1954 to 1958 the areas occupied in each State under authorities to prospect or explore for petroleum or other oils:—

AREAS OCCUPIED UNDER AUTHORITIES TO PROSPECT FOR PETROLEUM.

('000 Acres.)

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tasmania.	Total.
1954 ..	1,024	2,881	1,212	155,968	3,597	..	164,682
1955 ..	13,984	3,851	576	136,480	3,857	..	158,748
1956 ..	32,237	3,861	192	141,944	4,243	..	182,477
1957 ..	34,739	2,940	704	141,944	4,228	..	184,555
1958 ..	37,251	2,805	832	127,635	4,607	..	173,130

(a) Year ended 30th June.

§ 7. Closer Settlement.

1. **General.**—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in issues of the Official Year Book up to No. 22 (*see* No. 22, pp. 163–9) and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. In more recent years, however, the amalgamation, in some States, of closer settlement records with those of other authorities has made it impossible to obtain up-to-date figures for those States and for Australia as a whole, although aggregations of State totals as at the latest dates available have been published as rough approximations intended to convey some idea of the extent of the schemes throughout Australia. Particulars in this issue are restricted to a summary only of the position in each State at the latest date available.

2. **New South Wales.**—From the inception of closer settlement in 1905 to 30th June, 1958, 2,649 estates totalling 7,079,136 acres had been purchased by the Crown at a cost of £34,339,820 for purposes of closer settlement of civilians and returned service personnel.

Closer settlement is now being effected entirely under perpetual leasehold tenure (closer settlement leases).

3. **Victoria.**—The closer Settlement Commission was abolished as from 31st December, 1938, and land settlement was placed under the control of the Department of Lands and Survey. On 31st March, 1939, all Closer Settlement and Discharged Soldiers' accounts were amalgamated, the settlers' accounts adjusted and the new debt made payable over an extended period. Particulars of the operations under the provisions of the Closer Settlement Acts to 30th June, 1938, the latest date for which separate details are available, were given in earlier issues of the Official Year Book (*see* No. 42, p. 98).

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." Details of the position at 31st December, 1934, the latest date for which the information is available, were given in earlier issues of the Official Year Book, (*see* No. 42, p. 98).

5. **South Australia.**—The total area re-purchased for closer settlement at 30th June, 1958 was 948,885 acres, at a cost of £2,865,200. Included in these figures are 51,872 acres purchased for £185,285, and afterwards set apart for returned service personnel, 3,214 acres reserved for forest and waterworks purposes the purchase-money being £16,185, and also 26,563 acres of swamp and other lands, which were purchased for £111,850, in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 819,431 acres have been allotted to 2,800 persons.

6. **Western Australia.**—The total area acquired for closer settlement up to 30th June, 1958 was 3,081,482 acres, costing £4,447,199. Particulars of operations under the Act for the year ended 30th June, 1958, are as follows:—Area selected during the year, 85,938 acres; number of farms, etc., allotted to date, 2,516; total area occupied to date, 2,163,947 acres; area set aside for roads, reserves, etc., and balance available for selection, 917,535 acres.

7. **Tasmania.**—Up to 30th June, 1958, 38 areas had been opened up for closer settlement, the total purchase-money paid by the Government being £371,548 and the total area acquired amounting to 104,554 acres, including 12,149 acres of Crown lands. The number of farms occupied at 30th June, 1958 was 64.

§ 8. Settlement of Returned Service Personnel.

1. **War Service Land Settlement Scheme.**—(i) **General.** The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939–45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through annual Loan (War Service Land Settlement) Acts. Finance for other aspects of the Scheme in all States is provided by annual parliamentary appropriation. The States Grants (War Service Land Settlement) Act 1952 provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine.

New South Wales, Victoria and Queensland agreed, at the inception of the Scheme, to find their own finance for the acquisition and development of properties. In 1954, Queensland abandoned the Scheme and made available for general settlement all unallotted lands held under it.

In an effort to hasten the settlement of qualified applicants in New South Wales and Victoria, the Commonwealth, since 1st July, 1955, has made available to New South Wales and Victoria repayable loans with a maximum of £2 million to each State in any one year.

The Commonwealth has agreed to a request from the States that the total funds available for the year 1958-59 be spread over two years, namely 1958-60. The extent of these loans is dependent on provisions by the State from its own funds for amounts advanced and can be briefly summarized as follows:—Total advances from inception to 30th June, 1959.—New South Wales, £5,029,950; Victoria, £6,198,703.

For more detailed information about the agreements and the methods of operation and administration of the Scheme, see Official Year Book No. 37, pages 113-8. Issue No. 39 contains a brief general description of the Scheme.

(ii) *Summary of Operations to 30th June, 1959.* The following table shows the operations of the War Service Land Settlement Scheme in each State up to 30th June, 1959:—

WAR SERVICE LAND SETTLEMENT.

SUMMARY TO 30TH JUNE, 1959.

State.	Land Acquired.	Farms Allotted.		Farms in Course of Development.		Other.
		No.	Acres.	No.	Acres.	
New South Wales—(a)	Acres.	No.	Acres.	No.	Acres.	Acres.
Western Lands ..	6,060,331	212	6,060,331	..	..	..
Subdivision—						
Irrigation ..	186,299	337	186,299	..	..	..
Dry ..	1,268,486	1,111	1,268,486	..	..	..
Promotions—						
Irrigation ..	92,000	136	92,000	..	..	..
Dry ..	1,459,802	1,238	1,459,802	..	..	..
<i>Total, New South Wales</i>	<i>9,066,918</i>	<i>3,034</i>	<i>9,066,918</i>	<i>..</i>	<i>..</i>	<i>..</i>
Victoria ..	1,326,223	2,994	1,157,335	55	24,384	(b) 144,504
Queensland ..	398,524	470	218,640	..	..	(c) 179,884
South Australia ..	745,446	984	622,516	37	50,000	(d) 72,930
Western Australia ..	2,108,174	880	1,587,664	296	520,510	..
Tasmania ..	442,847	450	245,609	161	83,000	(d) 114,238
Total ..	14,088,132	8,812	12,898,682	549	677,894	511,556

(a) In New South Wales, properties are regarded by the State as being allotted at the date of acquisition. (b) Land previously approved now to be developed for closer settlement. (c) War Service Land Settlement was discontinued in 1954, and unallotted lands were made available for general settlement. (d) Crown lands, title to which has not been finalized pending survey.

(iii) *Expenditure.* The following table shows a dissection of the Commonwealth expenditure on War Service Land Settlement to 30th June, 1959:—

WAR SERVICE LAND SETTLEMENT (1939-45 WAR AND KOREA/MALAYA OPERATIONS): COMMONWEALTH EXPENDITURE TO 30th JUNE, 1959.

(£.)

Advances to States.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Total.
For acquisition of land ..	..	..	..	3,178,583	3,458,701	2,110,750	8,748,034
For development and improvement of land ..	..	..	..	12,707,280	17,592,885	10,572,304	40,872,469
Special Loans ..	5,029,950	6,198,703	..	..	..	..	11,228,653
Commonwealth contributions to excess cost over valuation ..	272,729	3,573,989	116,105	675,600	482,722	315,913	5,437,058
To provide credit facilities to settlers ..	..	..	..	4,344,654	11,862,396	3,066,043	19,273,093
For remission of settlers' rent and interest ..	410,098	153,475	36,214	113,002	347,440	110,242	1,170,471
For payment of living allowances to settlers ..	1,002,507	1,057,000	163,136	301,885	383,892	125,870	3,034,290
For operation and maintenance of irrigation projects ..	..	..	..	569,159	16,611	1,751	587,521
Loss on advances ..	14,428	1,847	61,159	6,824	114,576	1,968	200,802
Cost of administration of credit facilities ..	..	..	..	151,190	488,023	71,120	710,333
Total ..	6,729,712	10,985,014	376,614	22,048,177	34,747,246	16,375,961	91,262,724

Repayments of expenditure to 30th June, 1959, on the acquisition, development and improvement of land amounted to £7,514,964, and on the provision of credit facilities to settlers to £8,999,685, so that the total expenditure was reduced by £16,514,649 to £74,748,075. In addition, miscellaneous receipts in South Australia, Western Australia and Tasmania to 30th June, 1958, amounted to £3,690,301.

2. Loans and Allowances (Agricultural Occupations) Scheme.—(i) *General*. Full details of the measures taken to provide for the re-establishment of ex-servicemen in rural occupations were given in Official Year Book No. 37, pages 117–8.

(ii) *Loans (Agricultural Occupations)*. The following table shows particulars for each State and certain Territories to 30th June, 1959:—

LOANS (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 30th JUNE, 1959.

State.	Applications.			Loans Approved.			Advanced by Commonwealth Treasury to Lending Authorities.	Advanced by Lending Authorities to Applicants. (b)
	Re-ceived.	Ap-proved.	Refused, With-drawn or Not Yet Approved	Gross Amount.	Net Approvals.(a)			
					Applica-tions.	Amount.		
				£	£	£	£	£
New South Wales	7,778	6,303	1,475	4,960,417	5,484	4,254,353	2,660,000	4,281,445
Victoria. . .	4,818	3,350	1,468	2,176,011	3,090	2,016,960	1,040,000	1,796,854
Queensland . .	2,379	1,975	404	1,097,690	1,610	891,584	610,000	874,155
South Australia . .	2,136	1,288	848	1,004,548	1,225	962,934	465,000	826,964
Western Australia . .	3,201	2,290	911	2,159,228	2,153	2,025,885	1,111,450	1,963,690
Tasmania . . .	1,124	758	366	473,559	728	454,698	300,400	405,335
Northern Territory	34	15	19	11,945	12	10,148	10,148	10,148
New Guinea . . .	17	8	9	8,772	7	6,772	6,772	6,772
Norfolk Island . .	3	1	2	1,000	..	..	..	..
Total . .	21,490	15,988	5,502	11,893,170	14,309	10,623,334	6,203,770	10,165,363

(a) After deduction of loans declined after approval—£1,269,836.
principal repaid by borrowers.

(b) Includes advances from

These loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, livestock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc.

(iii) *Allowances (Agricultural Occupations)*. The following table shows details for each State and New Guinea to 30th June, 1959:—

ALLOWANCES (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 30th JUNE, 1959.

State.	Applications.			Advanced by Commonwealth Treasury to Bank.	Allowances Paid.
	Received.	Approved.	Rejected, Withdrawn or Not Yet Approved.		
				£	£
New South Wales ..	4,078	3,625	453	587,000	580,056
Victoria ..	3,068	2,311	757	296,500	296,013
Queensland ..	3,044	2,515	529	477,851	477,657
South Australia(a) ..	2,265	1,756	509	325,000	324,609
Western Australia ..	3,020	2,610	410	480,800	480,788
Tasmania ..	634	523	111	116,150	116,114
New Guinea ..	5	4	1	1,360	1,360
Total ..	16,114	13,344	2,770	2,284,661	2,276,597

(a) Includes allowances paid to four ex-servicemen in the Northern Territory.

These allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate.

3. War Service Land Settlement Division—Total Expenditure.—The following table shows details of the total expenditure on various projects by the War Service Land Settlement Division from the commencement of operations to 30th June, 1959.

**COMMONWEALTH WAR SERVICE LAND SETTLEMENT DIVISION:
TOTAL EXPENDITURE TO 30th JUNE, 1959.
(£.)**

	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N.T.	N.G.	Total.
War Service Land Settlement expenditure from Revenue or Loan Funds ..	6,729,712	10,985,014	376,614	22,048,177	34,747,246	16,375,961			91,262,724
Agricultural Loans(a) ..	4,281,445	1,796,854	874,155	826,964	1,963,690	405,335	10,148	6,772	10,165,363
Administration Allowances ..	587,000	296,500	477,851	325,000	480,800	116,150	..	1,360	2,284,661
Administration Expenses ..	661,124	150,147	69,234	76,511	340,130	42,903	..	..	1,340,049
Rural Training ..	328,488	499,453	106,211	189,877	226,162	108,226	..	..	1,458,417
Total ..	12,587,769	13,727,968	1,904,065	23,466,529	37,758,028	17,048,575	10,148	8,132	106,511,214

(a) Includes expenditure on new loans of moneys repaid by borrowers.

The following summary sets out the net expenditure to 30th June, 1959, after allowing for miscellaneous receipts and repayments:—

Miscellaneous Receipts to 30th June, 1959—	£
War Service Land Settlement	3,690,301
Agricultural Loans and Allowances	5,879,689
Rural Training	148,735
Total	9,718,725
Repayments, War Service Land Settlement Loans	16,514,649
Total Receipts and Repayments	26,233,374
Total Expenditure to 30th June, 1958	106,511,214
less Receipts and Repayments	26,233,374
Net Expenditure to 30th June, 1958	80,277,840

§ 9. Advances to Settlers.

1. General.—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory may be found in earlier issues of the Official Year Book (*see* No. 22, pp. 179–86).

The summaries of loans and advances in the following paragraphs are compiled from returns supplied by the various State government lending agencies in the several States. They include transactions in lands acquired under closer and soldier settlement schemes, but exclude balances owing on former Crown lands sold on the conditional purchase, etc., system.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts. In general, they include both principal and interest outstanding.

A summary for Western Australia is not included, as practically the only Governmental funds being made available are Commonwealth (*see* § 8 above).

In New South Wales and Victoria, expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland, no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advances in respect of improvements are included. In the other States, this expenditure is provided for by the Commonwealth and particulars are included in § 8 above.

Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945 and certain advances for the purchase of wire-netting and for other purposes made from finance provided by the Commonwealth are included in the summaries following.

2. New South Wales.—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1958:—

ADVANCES TO SETTLERS, ETC.: NEW SOUTH WALES.

Advances, etc.	Advances, etc., made during 1957-58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Accounts.	Amount.
<i>Department of Lands—</i>	£	£		£
Closer Land Settlement .. .. .	..	15,124,116	6,488	(a) 1,750,126
Soldier Settlers 1914-18 War .. .. .	..	(b) 3,196,005	96	24,388
1939-45 War	1,121,048	13,272,861	5,221	4,957,093
Soldier Land Settlement—Acquisition, development and improvement of land, War Service Land Settlement Agreement Act	1,903,083	27,496,189	2,596	c 25,895,027
Wire Netting .. .. .	..	1,494,653	29	2,586
Prickly Pear	23,359	325,685	187	13,149
<i>Rural Bank—</i>				
<i>General Bank Department—</i>				
Commonwealth Re-establishment and Employment Act 1945	3,149	4,239,554	1,361	743,657
Other	1,811,350	74,849,065	8,158	19,467,117
<i>Government Agency Department—</i>				
Rural Industries	169,349	9,018,680	1,071	503,357
Unemployment Relief and Dairy Promotion	114,667	3,695,131	2,232	1,386,420
Rural Reconstruction (d)	225,971	13,870,694	759	2,021,134
Shallow Boring	167,892	1,664,721	277	361,743
Farm Water Supplies	62,632	557,487	492	375,061
Soil Conservation	8,601	31,102	49	27,426
Rivers and Foreshores Improvement	679	4,916	24	981
Irrigation Areas	791,142	(e)	12,598	4,484,722
Government Guarantee Agency .. .. .	..	225,475	..	..
Closer Settlement Agency .. .. .	..	167,914	34	39,070
Total	6,402,922	f 169,234,248	41,672	62,053,057

(a) Excludes an amount of £4,683,201 capitalized to 30th June, 1958, on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act 1943. (b) In addition, the sum of £1,927,161 has been expended to 30th June, 1958, on developmental works on soldiers' settlements.

(c) Comprising capital value of Closer Settlement Leases, £18,993,621, and unpaid balance and interest on structural improvements, £6,901,406. (d) Includes Debt Adjustment, Drought Relief, and Marginal Wheat Areas Scheme Advances (Commonwealth and State Moneys), amount outstanding £1,109,471.

(e) Not available. (f) Incomplete.

3. Victoria.—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1958:—

ADVANCES TO SETTLERS, ETC.: VICTORIA.

Advances, etc.	Advances, etc., made during 1957-58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Persons.	Amount.
<i>State Savings Bank, Crédit Foncier—</i>	£	£		£
Civilians	78,025	11,873,513	544	460,480
Discharged Soldiers .. .. .	..	848,567	16	6,757
<i>Treasurer—</i>				
Cool Stores, Canneries, etc. .. .. .	..	1,621,367	(a) 2	620,964
<i>Department of Lands and Survey—</i>				
Closer Settlement Settlers and Soldier Settlers .. .. .	..	b46,904,855	2,031	2,194,713
Cultivators of Land .. .. .	..	2,463,558	104	20,337
Wire Netting	3,060	731,458	54	5,897
<i>Soldier Settlement Commission—</i>				
Purchase of land	2,093,731	18,491,126	(c)	} d 17,005,997
Development and Improvement of Holdings	2,383,744	24,414,233	(c)	
Advances for sales of land not required for Soldier Settlement(e)	151,259	1,349,437	17	277,769
Advances for Settlers' Lease Liability, Soldier Settlement Act 1946	2,224,229	17,291,045	2,033	15,900,661
Advances to assist in acquiring and developing single unit farms	417,982	11,314,472	1,896	7,362,046
Advances for improvements, stock, implements, etc.	733,445	4,528,995	1,435	1,451,128
Advances for shares in Co-operative Companies, Soldier Settlement Act 1946 .. .. .	..	125,164	196	89,176
Commonwealth Re-establishment and Employment Act 1945 Advances	63	1,796,788	629	239,155
Total	8,085,538	143,754,578	8,957	45,635,080

(a) Number of Companies. (b) Represents consolidated debts of settlers (Section 30, Act 4091). (c) Not available. (d) After allowing an amount of £6,936,770 representing excess acquisition, development and improvement cost which has been written off. (e) Sale price of land not required for settlement, balance outstanding represents instalments not yet due where terms were given to purchasers.

4. *Queensland.*—The following table shows particulars of advances, etc., to 30th June, 1958. The figures exclude transactions in land:—

ADVANCES TO SETTLERS, ETC.: QUEENSLAND.

Advances, etc.	Advances, etc., made during 1957–58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Accounts.	Amount.
Co-ordination of Rural Advances and Agricultural Bank Acts	£ 2,484,166	£ 27,847,104	4,669	£ 10,789,662
Discharged Soldiers' Settlement(a) .. .. .	.. .. .	2,467,913	200	36,038
Water Facilities .. .. .	.. .. .	58,079	..	..
Wire Netting, etc. .. .. .	.. .. .	1,019,403	148	7,031
Seed Wheat and Barley	1,251 (b)	146,234	(c)	12,051
Drought Relief	364,020	1,325,067	247	374,461
War Service Land Settlement	235,949	3,996,457	421	2,328,598
Income (Unemployment Relief and State Development) Tax Acts(d) .. .. .	.. .. .	1,183,891 (e)	263	22,578
Irrigation .. .. .	.. .. .	54,914	4	548
Farmers' Assistance (Debt Adjustment Acts) .. .. .	.. .. .	1,044,490	56	72,437
Commonwealth Re-establishment and Employment Act 1945	962	872,655	236	59,413
Total	3,086,348	40,016,207 (e)	6,244	13,702,817

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Largely for relief to cotton and tobacco growers and for rural development (ringbarking, clearing, fencing, etc.). (e) Incomplete.

5. *South Australia.*—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1958:—

ADVANCES TO SETTLERS, ETC.: SOUTH AUSTRALIA.

Advances, etc.	Advances, etc., made during 1957–58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Persons.	Amount.
<i>Department of Lands—</i>	£ 17,925	£ 5,071,780	111	£ 1,104,255
Advances to Soldier Settlers .. .. .	.. .. .	41,451	..	..
Advances to Blockholders .. .. .	.. .. .	75,693	..	..
Advances for Sheds and Tanks	185	2,730,516	559	730,437
Advances under Closer Settlement Acts .. .. .	.. .. .	62,258	10	19,684
Advances under Agricultural Graduates Settlement Act .. .. .	.. .. .	650,995	921	2,553,049
Settlement of Returned Service Personnel, 1939–45 War .. .. .	.. .. .	3,538,538	..	..
<i>Primary Producers Assistance Department—</i>	.. .. .	2,146,768	4	1,256
Advances in Drought-affected Areas .. .. .	.. .. .	4,435,509	3	884
Advances under Farmers Relief Acts .. .. .	.. .. .	291,443	35	11,305
<i>Irrigation Branch—</i>	.. .. .	1,048,174	281	299,942
Advances to Civilians .. .. .	.. .. .	50,492	192	206,323
Advances to Soldier Settlers	5,106	1,398,356	75	34,398
<i>State Bank of South Australia (Crédit Foncier Department)—</i>	99,974	1,697,266	107	1,159,869
Advances to Settlers for Improvements .. .. .	.. .. .	826,964	333	210,018
Advances under Vermin and Fencing Acts .. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Advances under Loans to Producers Act .. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Commonwealth Re-establishment and Employment Act 1945	501	.. .. .	.. .. .	.. .. .
Total	825,178	24,515,486	2,631	6,331,420

6. *Western Australia.*—The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1st October, 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate similarly to the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown in § 8 above.

7. *Tasmania*.—The following table shows particulars of advances under State Authorities to 30th June, 1958. Although not regarded as outstanding advances by the Department of Agriculture the figures in connexion with closer and soldier land settlement have been included in the table for comparative purposes; the areas so purchased have been leased on 99-year terms having an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS, ETC.: TASMANIA.

Advances, etc.	Advances, etc., made during 1957–58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Persons.	Amount.
<i>Agricultural Bank—</i>	£	£		£
State Advances Act and Rural Credits ..	141,209	3,547,250	765	714,542
Orchardists' Relief, 1926 ..	..	46,832	..	..
Unemployed (Assistance to Primary Producers) Relief Act 1930–31 ..	..	114,302	..	..
Bush Fire Relief 1934 ..	..	14,555	..	..
Crop Losses, 1934–35 ..	..	10,086	..	..
Assistance to Fruitgrowers Act 1941 ..	..	34,556	..	..
Flood Sufferers' Relief Act 1942 ..	..	3,764	..	..
Flood Sufferers' Relief Act 1944 ..	..	1,902	..	..
Commonwealth Re-establishment and Employment Act 1945 ..	25	407,429	252	125,675
Primary Producers' Relief Act 1947 ..	..	297,846	88	17,919
<i>Minister for Agriculture—</i>				
<i>Soldier Settlers—</i>				
Advances ..	7,863	1,009,073	57	28,431
Purchase of Estates, etc.(b) ..	248	2,558,534	(c) 327	278,589
<i>Closer Settlers—</i>				
Advances ..	1,250	101,808	12	5,118
Purchase of Estates, etc.(b) ..	212	527,536	73	65,459
Total ..	150,807	8,675,473	1,574	1,235,733

(a) Excludes £204,813 advances capitalized, £79,166 advances written off to bad debts, and £40,789 written off to revaluation. (b) Not regarded by the Department as outstanding advances. (c) Number of leaseholders, including those to whom advances have been made.

8. *Northern Territory*.—During the year 1957–58, 40 advances totalling £81,344 were approved and advances made totalled £54,762. At 30th June, 1958, the balance outstanding from 82 settlers, including interest, was £127,271.

9. *Summary of Advances*.—The following table is a summary for each State (except Western Australia) and the Northern Territory to 30th June, 1958. The particulars so far as they are available, represent the total sums advanced to settlers, including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer and soldier land settlement, while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations. Particulars of Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945 and of certain advances for wire-netting and other purposes provided from Commonwealth funds are included.

ADVANCES TO SETTLERS, ETC.: SUMMARY.

State.	Advances, etc., made during 1957–58.	Total Advances, etc., to 30th June, 1958.	Balance outstanding at 30th June, 1958.	
			Number of Persons.	Amount.
	£	£		£
New South Wales(a) ..	6,402,922	169,234,248	(c) 41,672	62,053,057
Victoria(a) ..	8,085,538	143,754,578	8,957	45,635,080
Queensland ..	3,086,348	40,016,207	(b)(c) 6,244	13,702,817
South Australia ..	825,178	24,515,486	2,631	6,331,420
Tasmania ..	150,807	8,675,473	1,574	1,235,733
Northern Territory ..	54,762	(d)	82	127,271

(a) Includes expenditure on acquisition, development and improvement of land for war service land settlement (see p. 99). (b) Incomplete. (c) Number of accounts. (d) Not available.

§ 10. Alienation and Occupation of Crown Lands.

1. **General.**—The figures shown in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out the position with regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during 1958. A summary for each State and Territory and for Australia as a whole is also included. Particulars for each year from 1948 to 1958 appear in *Primary Industries Bulletin* No. 52, Part 1.—Rural Industries, page 1. The area occupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases or licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—The total area of New South Wales is 198,037,120 acres, of which 27.1 per cent. had been alienated at 30th June, 1958; 6.1 per cent. was in process of alienation; 58.8 per cent. was held under leases and licences; and the remaining 8.0 per cent. was unoccupied, or held by the Crown.

The following table shows particulars as at 30th June, 1958:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: NEW SOUTH WALES,
30th JUNE, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. Alienated.		3. Held under Leases and Licences.	
Granted and sold prior to 1862 ..	7,146,579	Homestead selections and grants ..	1,691,697
Sold by auction and other sales, 1862 to date ..	15,785,681	Alienable leases, long-term and perpetual ..	25,500,081
Conditionally sold, 1862 to date ..	36,315,476	Long-term leases with limited right of alienation ..	1,723,082
Granted under Volunteer Land Regulations, 1867 to date ..	172,198	Other long-term leases ..	81,775,150
Granted for public and religious purposes ..	265,986	Short-term leases and temporary tenures ..	3,761,254
	59,685,920	Forest leases ..	1,844,394
		Mining and auriferous leases ..	195,309
Less lands resumed or reverted to Crown ..	6,024,476	Total ..	116,490,967
Total ..	53,661,444		
2. In Process of Alienation.		4. Unoccupied—Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (approximate) ..	15,791,319
Conditional purchases ..	10,500,220		
Closer settlement purchases ..	1,210,697		
Soldiers' group purchases ..	139,892		
Other forms of sale ..	242,581		
Total ..	12,093,390	5. Total Area of State ..	198,037,120

3. **Victoria.**—The total area of Victoria is 56,245,760 acres, of which 55.4 per cent. had been alienated up to the end of 1958; 3.0 per cent. was in process of alienation under deferred payments and closer settlement schemes; 12.3 per cent. was occupied under leases and licences; and 29.3 per cent. was unoccupied or held by the Crown.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: VICTORIA,
31st DECEMBER, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i>	31,178,175	3. <i>Leases and Licences held—</i> Under Lands Department—	
		Perpetual Leases	(a) 1,095,076
		Agricultural College Leases	31,650
		Other Leases and Licences	2,216
		Temporary (Yearly) Grazing Licences	5,772,162
2. <i>In Process of Alienation—</i> Exclusive of Mallee and Closer Settlement Lands	255,964	<i>Total</i>	6,901,104
Mallee Lands (exclusive of Closer Settlement Lands)	1,167,648		
Closer Settlement Lands	241,165	4. <i>Occupied by the Crown or Un- occupied</i>	16,501,704
<i>Total</i>	1,664,777	5. <i>Total Area of State</i>	56,245,760

(a) Large increase is due to issue of new leases under amending legislation.

4. *Queensland.*—The total area of this State is 426,880,000 acres, of which, on 31st December, 1958, 5.9 per cent. was alienated; 0.6 per cent. was in process of alienation; and 85.6 per cent. was occupied under leases and licences. The remainder, 7.9 per cent., was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND,
31st DECEMBER, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and Licences—</i>	
By Purchase	25,196,871	Pastoral Leases	245,290,400
Without Payment	92,185	Occupation Licences	17,026,880
		Grazing Selections and Settle- ment Farm Leases	92,216,652
		Leases—Special Purposes(a)	2,489,395
		Mining Leases	658,174
		Perpetual Lease Selections and Perpetual Lease Prickly Pear Selections	6,865,039
		Auction Perpetual Leases, etc. Forest Grazing Leases (of Reserves)	41,350
			751,400
		<i>Total</i>	365,339,290
		4. <i>Reserves (net, not leased), Surveyed Roads and Surveyed Stock Routes</i>	22,136,757
<i>Total</i>	25,289,056	5. <i>Unoccupied</i>	11,637,015
		6. <i>Total Area of State</i>	426,880,000
2. <i>In Process of Alienation</i>	2,477,882		

(a) Special leases of Crown land, 493,332 acres; special leases of reserves, 1,996,063 acres.

5. *South Australia.*—The area of South Australia is 243,244,800 acres and at 30th June, 1958, 6.3 per cent. was alienated; 0.2 per cent. in process of alienation; 56.9 per cent. occupied under leases and licences; and 36.6 per cent. occupied by the Crown or unoccupied.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA,
30th JUNE, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence(a)</i> —	
Sold	14,157,567	Perpetual Leases, including Ir-	
Free Grants	914,163	rigation Leases	19,861,480
Dedicated	270,017	Pastoral Leases	115,715,484
		Other Leases and Licences	2,792,797
		<i>Total</i>	138,369,761
<i>Total</i>	15,341,747	4. <i>Area Unoccupied(b)</i>	89,059,546
2. <i>In Process of Alienation</i>	473,746	5. <i>Total Area of State</i>	243,244,800

(a) Mining leases and licences have also been issued over an area comprising 128,431,056 acres.

(b) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

6. *Western Australia.*—The total area of Western Australia is 624,588,800 acres, of which, at 30th June, 1958, 4.2 per cent. was alienated; 2.1 per cent. was in process of alienation; and 35.5 per cent. was occupied under leases and licences issued either by the Lands, Mines or Forests Departments. The balance of 58.2 per cent. was unoccupied.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: WESTERN AUSTRALIA,
30th JUNE, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i>	26,205,502	3. <i>Leases and Licences in Force</i> —	
		(i) Issued by Lands Department—	
2. <i>In Process of Alienation</i> —		Pastoral Leases	212,543,505
Free Homestead Farms	350,714	Special Leases	3,152,756
Conditional Purchase	10,950,462	Leases of Reserves	816,951
Selections under the Agricultural		Residential Lots	4,634
Lands Purchase Act	289,774	Perpetual Leases	1,228,188
Grazing Land	1,384,159	(ii) Issued by Mines Department—	
Town and Suburban Lots	793	Gold-mining Leases	21,017
Crown Grants of Reserves	77,443	Mineral Leases	43,269
		Miners' Homestead	
		Leases	34,106
		(iii) Issued by Forests Department—	
		Timber Permits	3,919,067
<i>Total</i>	13,053,345	<i>Total</i>	221,763,493
		4. <i>Area Unoccupied</i>	363,566,460
		5. <i>Total Area of State</i>	624,588,800

7. *Tasmania.*—The total area of Tasmania is 16,778,000 acres, of which, at 30th June, 1958, 37.8 per cent. had been alienated; 1.2 per cent. was in process of alienation; 10.4 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; while the remainder (50.6 per cent.) was unoccupied or reserved by the Crown.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: TASMANIA,
30th JUNE, 1958.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i>	6,346,425	3. <i>Leases and Licences—continued.</i>	
2. <i>In Process of Alienation</i> ..	206,781	(i) Issued by Lands Department— <i>continued.</i>	
3. <i>Leases and Licences—</i>		Soldier Settlement ..	54,687
(i) Issued by Lands Department—		Short-term Leases ..	816
Islands	95,431	(ii) Issued by Mines Department ..	36,625
Ordinary Leased Land ..	978,269	<i>Total</i>	1,743,655
Land Leased for Timber ..	563,315	4. <i>Area Occupied by the Crown or Un-</i>	
Closer Settlement	14,512	occupied	8,481,139
		5. <i>Total Area of State</i>	16,778,000

8. **Northern Territory.**—The area of the Northern Territory is 335,116,800 acres, of which, at 30th June, 1958 only 0.1 per cent. was alienated; 52.0 per cent. was held under leases and licences; 14.3 per cent. was reserved for aboriginal, defence and public requirements; and the remaining 33.6 per cent. was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30th June, 1958:—Alienated, 376,562 acres; leased—pastoral leases, 139,469,293 acres, other leases, licences and mission stations, 34,929,561 acres, total leased, 174,398,854 acres; reserved for aboriginal, defence and public requirements, 47,985,271 acres; unoccupied and unreserved, 112,356,113 acres; total, 335,116,800 acres.

9. **Australian Capital Territory.**—Alienated land of the Territory (excluding the Jervis Bay area) at the end of 1958 comprised 11.3 per cent. of the total area; land in process of alienation 7.1 per cent; land held under lease and licence 49.2 per cent; land otherwise occupied, including city tenures, 8.3 per cent.; and unoccupied 24.1 per cent.

The following are the particulars of land areas in the Australian Capital Territory at the end of 1958:—Alienated 65,857 acres; in process of alienation 41,224 acres; leased—Grazing, agricultural, etc., leases, 275,458 acres; grazing licences, 11,100 acres; otherwise occupied, including city area leases, 48,604 acres; total leased, 335,162 acres; unoccupied, 140,686 acres; total, 582,929 acres. Including the Jervis Bay area of 18,000 acres—6,266 acres leased and 11,734 acres otherwise occupied—the grand total for the whole Territory is 600,929 acres.

10. **Summary.**—The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1958:—

ALIENATION AND OCCUPATION OF CROWN LANDS, 1958.

State or Territory.	Private Lands.				Crown Lands.				Total Area.
	Alienated.		In Process of Alienation.		Leased or Licensed.		Other.		
	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	
N.S.W.(a) ..	53,662	27.1	12,093	6.1	116,491	58.8	15,791	8.0	198,037
Victoria(b) ..	31,178	55.4	1,665	3.0	6,901	12.3	16,502	29.3	56,246
Queensland(b) ..	25,289	5.9	2,478	0.6	365,339	85.6	33,774	7.9	426,880
S. Aust.(a) ..	15,342	6.3	474	0.2	138,370	56.9	89,059	36.6	243,245
W. Aust.(a) ..	26,206	4.2	13,053	2.1	221,763	35.5	363,566	58.2	624,588
Tasmania(a) ..	6,346	37.8	207	1.2	1,744	10.4	8,481	50.6	16,778
Nor. Terr.(a) ..	376	0.1	..	..	174,399	52.0	160,342	47.9	335,117
A.C.T.(b)(c) ..	66	11.0	41	6.8	342	56.9	152	25.3	601
Australia ..	158,465	8.3	30,011	1.6	1,025,349	53.9	687,667	36.2	1,901,492

(a) At 30th June.

(b) At 31st December.

(c) Includes Jervis Bay area.

A diagram showing in graphical form the areas alienated from the State, those in process of alienation under the various systems of deferred payments, the areas held under leases or licences and the areas left unoccupied was included in earlier issues of the Official Year Book (see No. 41, page 73), but is not reprinted in this issue.

CHAPTER V.

THE TERRITORIES OF AUSTRALIA.

NOTE.—The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are:—Norfolk Island; Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Ashmore and Cartier Islands; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 23 and 24 of Chapter I. (See map on page 109 for location of Territories.)

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. **Area.**—Upon the extension of New South Wales westward to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles.

2. **Population.**—(i) *Population excluding Full-blood Aborigines.* At the Census of 30th June, 1954, the population of the Territory, excluding full-blood aborigines, was 10,288 males, 6,181 females, 16,469 persons. Corresponding figures at the Census of 30th June, 1947, were 7,378, 3,490 and 10,868 respectively. The estimated population, excluding full-blood aborigines, at 30th June, 1958, was 19,579 persons.

The European population of the Territory increased slowly from 670 at the Census of 1881 to 3,767 in 1918. By 1921, it had decreased to 2,458, and in 1933 was still only 3,306. At the Census of 1947, it had risen to 9,116, an increase of 176 per cent. on the 1933 figures, while at the Census of 1954 it had risen a further 54 per cent. to 14,028.

Although at one time there were more than 4,000 Chinese in the Territory, at 30th June, 1954, there were only 325, and these comprised the major proportion of the 486 full-blood non-European inhabitants, excluding Australian aborigines, at that date.

The half-caste population recorded at the Census of 1954 numbered 1,955, of whom 1,659 were half-caste Australian aborigines. Corresponding figures at the 1947 Census were 1,364 and 1,247 respectively.

(ii) *The Aborigines.* The total number of full-blood aborigines at 30th June, 1958, was estimated at 16,100, of whom approximately 3,800 were in regular employment. The Aborigines Ordinance was replaced by the Welfare Ordinance which came into operation on 13th May, 1957. Under the Aborigines Ordinance, all aborigines were, as a race, deprived of citizenship rights and could only attain them by individual exemption from the legislation. The Welfare Ordinance recognizes that from birth they are Australian citizens and temporarily deprives of full citizen rights only those who are committed by name as wards of the State under processes laid down by law. Such committal is subject to the right of individual appeal. This is the same basic idea that is expressed in social legislation applying to those members of the white community who are not able to look after themselves or who have to be protected (e.g., neglected children). Aboriginal reserves comprise an area of 69,458 square miles. (See also Chapter IX.—Population.)

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Official Year Book No. 15, page 940. For particulars of the administration up to the Northern Territory (Administration) Act 1931, by which it was for the second time placed in the hands of an Administrator, see Official Year Book No. 38 and earlier issues.

The Northern Territory (Administration) Act 1910–1959 provides for the constitution of a Legislative Council consisting of the Administrator as President, six official members, three nominated non-official members and eight elected members. The Council makes ordinances for the Territory, which must be submitted to the Administrator for assent. The Administrator may, or may not, assent to them, or he may reserve them for the Governor-General. The Governor-General may disallow any ordinance assented to by the Administrator within six months from the date of assent, and the operation of ordinances relating to certain matters including Crown lands and aboriginal affairs is dependent on his approval. Money votes may be proposed in the Council only by the Administrator himself, or by his permission or direction.

The Territory elects a member to the House of Representatives, who has the right to take part in debates but, until recently, had no voting rights. In 1959, amendments were made to the Northern Territory Representation Act to give this member limited voting rights.

§ 3. Physiography.

1. **Tropical Nature of the Country.**—The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland, the country generally is destitute of conspicuous landmarks. From the coast, there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent, the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

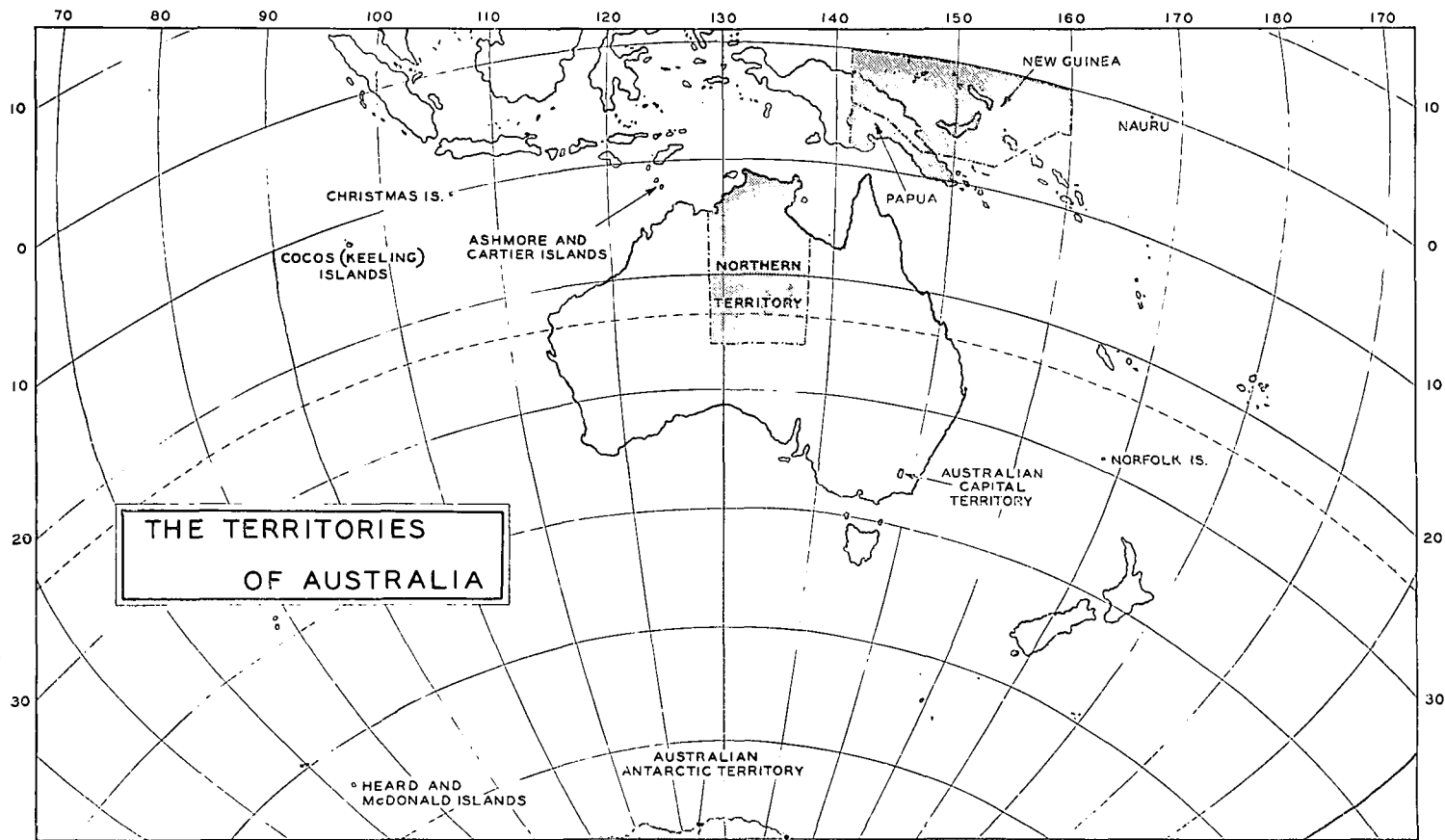
1. **The Seasons.**—There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Further particulars appear in Official Year Book No. 6, page 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous) and frogs abound. There are many varieties of fresh-water fish and littoral mollusca. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventative measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been greatly reduced by indiscriminate shooting. Buffalo shooting is now controlled by Ordinance.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paperbark timbers are now cut and milled for local building purposes. These three timbers are resistant to termites. On the wide expanses of plain country in the interior, there is little vegetation, the principal orders represented being:—*Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodeniaceae*, *Leguminosae*, *Utricaceae*.

§ 5. Production.

1. **Agriculture.**—Up to the present, agriculture has made little progress in the Territory, although rice, peanuts, tobacco, grain sorghum, bananas, pineapples, citrus, mangoes, papaws, vegetables, fodder plants and improved pastures can be grown in certain areas. At the present time, commercial agricultural production is practically confined to peanuts, which have been an export crop for some time, and vegetables and small-scale fruit production mainly pineapple and citrus) for local consumption.



In 1946, the Commonwealth Scientific and Industrial Research Organization commenced scientific surveys to define more accurately the potentialities of the Territory. Surveys have been completed of the Katherine-Darwin, Barkly Tablelands and Victoria River Regions. The survey of the Katherine-Darwin Region indicated that further investigations into agricultural possibilities were warranted. As a result, the Commonwealth Scientific and Industrial Research Organization established an agricultural research station at Katherine to investigate the possibilities of dry farming in a land system covering an area of about 7,000 square miles in the Katherine-Daly River basin. The research work at this station was sufficiently encouraging in respect of the production of peanuts, grain sorghum, and pastures to warrant investigations into the application of the findings on a commercial scale. To further the investigations, the Commonwealth Government approved of the establishment by the Northern Territory Administration, in 1952, of an experimental farm at Katherine for the purpose of carrying out trials with these crops to determine the requirements for farming them on a commercial scale. The trials are in progress but it is too early to make any definite pronouncements. In 1956, the Administration established an experimental farm at Berrimah, near Darwin. Investigations into fruit and vegetable growing and pasture production are being carried out under both dryland and irrigated conditions.

The survey of the Katherine-Darwin Region also indicated various soil types in other parts of the Region on which agricultural production tests would be worthwhile. In order to carry out these tests economically and quickly, the Administration, in 1952, organized a mobile unit for the purpose of conducting trials on five soil types with pineapples, peanuts, sorghum, tobacco and other crops. This type of trial is now carried out by agricultural field officers of the Administration in various areas of the Territory considered potentially suitable for agriculture.

Prospects for rice growing were indicated by the survey and, in 1952, the Administration established rice research stations at Humpty Doo and at a location known as Sixty Mile, on the Stuart Highway, 60 miles from Darwin. From the 1959-60 season, rice research work will be carried out in the Territory by the C.S.I.R.O. as well as by the Administration. Because of flooding difficulties in the wet season, rice quarantine for the Northern Territory is carried out by the C.S.I.R.O. at the Kimberley Research Station, Western Australia. At the rice research stations, it has been demonstrated that rice can be grown in the Territory but that the main problems are adequate water control and drainage, determination of cultivation techniques in the soil conditions, and the production of suitable rice varieties. Since the 1954-55 season, Territory Rice Limited, a firm with Australian and American capital, has been conducting large-scale trials near Humpty Doo to prove its theory that commercial production of rice is possible on the sub-coastal plains of the Territory.

2. Pastoral Industry.—The pastoral possibilities of certain parts of the Territory were recognized at an early date and in 1866 stock were brought into the Macdonnell Range country from South Australia. Six years later, cattle were moved from Queensland to the northern parts of the Territory and in 1879 Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons, sheep-raising was not very successful. The cattle industry, however, progressed steadily and the expansion of the industry is continuing.

Cattle exported during 1957-58 numbered 129,276—82,113 to Queensland, 36,085 to South Australia, 9,194 to Western Australia and 1,884 to the Philippines. Other livestock exports included 209 horses, 55 bulls and 20 pigs. Imports of livestock were—Bulls 1,068; stallions, nine; other horses, 154; rams, 27; other sheep, 4,797; and pigs, 60.

The estimated numbers of livestock in the Territory at the end of the years 1953 to 1955 and at June, 1957 and 1958, are given in the table hereunder:—

NORTHERN TERRITORY: LIVESTOCK.

As at—	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
31st Dec. 1953 ..	36,985	966,033	31,232	1,132	12,502	53	1,475	626
„ „ 1954 ..	33,035	968,755	28,644	911	11,152	50	661	364
„ „ 1955 ..	37,306	1,027,819	33,249	1,076	12,273	59	755	363
30th June 1957 ..	38,180	1,175,997	30,466	755	11,189	51	450	286
„ „ 1958 ..	38,668	1,243,588	26,795	3,071	9,938	56	372	324

3. **Hides and Skins.**—The numbers of hides and skins exported from the Territory during 1957–58 were as follows: buffalo, 110; sheep, 2,801; crocodile, 1,005, and cattle, 3,109.

4. **Mining.**—During 1958, the value of output of the mining industry in the Territory, excluding uranium mining, was £2,450,000. This, however, was slightly lower than the record production of £2,626,000 achieved by the industry in 1957.

The mining of copper ores and concentrates is the most important in terms of value of output and accounts for more than half of the Territory's total recorded production. Prior to 1956, gold minerals, first mined in 1869, accounted for most of the value of output but in recent years production has remained relatively constant while copper production has increased. The bulk of the copper and gold is won at Tennant Creek where, in 1958, the government battery was re-opened to encourage mining by smaller operators.

Uranium minerals were first discovered at Rum Jungle in 1949, and other deposits have been found since. Production of uranium concentrates at Rum Jungle commenced in 1954 and, during 1959, uranium concentrates were produced at other plants from ores mined on the South Alligator River. The production of manganese and salt, which commenced in 1955 and 1957 respectively, is used in the treatment of uranium ores.

The Harts Range field in Central Australia continues to produce the bulk of Australian high grade mica but production is declining. Production of tin and wolfram concentrates, important in the past, is now negligible.

The following table shows the value of output of the mining industry in the Territory for the years 1954 to 1958:—

NORTHERN TERRITORY: VALUE OF OUTPUT (a) OF THE MINING INDUSTRY.
(*Excluding Uranium.*)
(£'000.)

Year.	Copper Ore and Concentrate.	Gold. (b)	Manganese Ore.	Mica.	Other.	Total All Minerals.
1954	115	839	..	121	70	1,145
1955	611	866	28	64	122	1,691
1956	1,360	1,032	29	42	131	2,594
1957	1,524	973	20	50	59	2,626
1958	1,295	993	84	47	31	2,450

(a) Selling value at point of sale of mine products less transport costs from mine to point of sale.
(b) Ore, concentrate, bullion, alluvial gold, etc.

5. **Pearl Fisheries.**—In 1884, mother-of-pearl-shell was discovered in the harbour of Port Darwin. Since that time, the areas fished have extended to the various banks to seaward and coastwise along the Northern Territory coast. Figures for production and value of shell for the seasons ended January, 1954 to 1958, are shown in the following table:—

NORTHERN TERRITORY: PEARL FISHING. (a)

Season Ended January—	Boats Engaged.	Pearl-shell Taken.	
		Quantity. ('000 lb.)	Value. (£'000.)
1954.. ..	10	371	95
1955.. ..	9	343	89
1956.. ..	10	311	74
1957.. ..	10	585	146
1958.. ..	11	753	135

(a) Excludes operations of Queensland and Japanese pearlers operating in Northern Territory waters.

§ 6. Land Tenure.

1. **General.**—A description of the system of land tenure in force in the Territory in 1928 is given in Official Year Book No. 22, Chapter V.—Land Tenure and Settlement. It was revised in Official Year Book No. 39, pages 329–30, and Chapter IV.—Land Tenure and Settlement, of this issue contains up-to-date statistical information on the subject.

Almost half the land in the Territory is reserved, or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described briefly below and in more detail in Official Year Book No. 39, pages 329–30.

2. *Pastoral, Agricultural, etc., Leases.*—*Pastoral Leases*—granted for periods not exceeding 50 years.

Pastoral Homestead Leases—granted in perpetuity but available only to persons who intend to reside *bona fide* on the leased land. Companies are not eligible to hold this type of lease.

Agricultural Leases—granted in perpetuity, with the area for any one lease limited according to the type of farm (Cultivation farms, Class 1, 1,280 acres, Class 2, 2,560 acres; Mixed farming and grazing, Class 1, 12,800 acres, Class 2, 38,400 acres).

Leases of Town Lands—except in Darwin, granted in perpetuity (in Darwin granted for periods up to 99 years).

Special Purpose Leases—granted for periods up to 99 years, for purposes other than pastoral, agricultural or mining, or private residential purposes within a town.

Agricultural Development Leases—granted for periods up to 30 years for the purpose of large scale agricultural development.

Church Lands Leases—granted for church purposes at a nominal rental in perpetuity.

Leases to Aborigines—granted for areas not exceeding 160 acres each for any period of years upon such terms and conditions as thought fit.

Leases to Mission Organizations—granted for periods up to 21 years.

Miscellaneous Leases—granted for any prescribed or approved purpose, for periods not exceeding 21 years.

Grazing Licences—granted to graze stock on Crown lands for periods not exceeding one year.

Occupation Licences—granted for manufacturing, industrial or any prescribed purposes, for periods not exceeding five years.

Miscellaneous Licences—granted for periods not exceeding one year.

The foregoing leases and licences are granted at specified rentals or rentals fixed by the Administrator and subject to re-appraisal, and under various prescribed or specified conditions.

3. *Mining Leases, etc.*—*Holdings under Miners' Rights*—entitling the holder, for a fee of 5s. for 12 months from the date of issue, to take possession of and occupy Crown lands for mining purposes.

Gold-mining Leases—granted for a period of 21 years, renewable for further periods of 21 years, for areas not exceeding 20 acres each, at an annual rental of 5s. an acre for the first year and £1 an acre thereafter and with payment of a royalty of 3d. in the £1 on the value of gold won, or 6d. in the £1 if on Aboriginal Reserves.

Mineral Leases—granted in blocks not exceeding 40 acres each, at an annual rental of 5s. an acre, with term, renewal, and royalty conditions as for gold-mining leases.

Dredging Claims—granted for gold or minerals claims, the area not exceeding 300 acres each, at an annual rental of 2s. an acre and with payment of a royalty of 6d. in the £1 on the value of minerals won if on Aboriginal Reserves.

Petroleum Prospecting Permits—granted to search for oil over one, two or three areas not exceeding in the aggregate 10,000 square miles for an initial term not exceeding 12 months with provision for extensions in three-year periods up to a maximum of 10 years. The permittee must lodge a fee of £100 and enter into a bond for at least £1,000 to comply with the conditions of the permit and the provisions of the Petroleum (Prospecting and Mining) Ordinance 1954-1957 and the regulations thereunder.

Petroleum Licences—confer an exclusive right to carry out the detailed surveys and other operations necessary to test the land for petroleum. A licence is granted only to a permittee for a fee of £20 over an area not exceeding 2,500 square miles upon the permittee entering into a bond of at least £5,000 to comply with the provisions of the licence and the Ordinance and Regulations.

Petroleum Leases—granted only to a licensee for a period of 21 years, and renewable for further periods of 21 years, in respect of an area not exceeding 500 square miles. The lessee is required to pay a royalty of 10 per cent. upon the gross value of all crude oil produced.

Coal Licences—granted to search for coal over an area not exceeding 1,000 square miles for a period of five years, at an annual fee of £10.

Coal Leases—granted for a period of 21 years, renewable for 21 years at an annual rental of 1s. an acre and a royalty fixed by regulation.

Business and Residence Areas—granted at the prescribed fee, authorizing the holder to occupy on a gold or mineral field an area not exceeding one acre for residence and carrying on business (one-quarter of an acre if for residence only).

Garden Areas—granted under prescribed conditions, on a gold or mineral field for growing fruit or other garden produce, the area of each garden not exceeding 5 acres.

There are various conditions regarding working, employment and value of machinery used, which apply to the foregoing leases and licences.

§ 7. Trade, Transport and Communication.

1. **Trade.**—No record is kept of the trade between the States and the Territory. In the post-war years 1945-46 to 1948-49, direct overseas imports averaged about £200,000 a year, but in the four years 1950-51 to 1953-54, the average was about £625,000 a year. Imports totalled £1,088,697 in 1957-58 and £1,058,998 in 1958-59, while direct overseas exports amounted to £655,617 in 1957-58 and £360,682 in 1958-59.

2. **Shipping.**—Shipping services to Darwin are provided from the eastern States at intervals of about six weeks by ships of the Australian National Line and from Western Australia twice a month by ships of the Western Australian State Shipping Service. Oversea tankers visit Darwin approximately ten times annually with supplies of aircraft fuel and other petroleum products. Other overseas vessels call at irregular intervals. During 1957-58, 68 calls were made by vessels at Darwin, landing approximately 51,646 tons of merchandise and 64,063 tons of petroleum products.

3. **Air Services.**—At 30th June, 1958, there were 25 government aerodromes and 87 licensed aerodromes in the Territory. Darwin is a first-class international airport. Qantas Empire Airways Ltd. and British Overseas Airways Corporation operate, through Darwin, a Sydney-Singapore-London passenger and freight service. The Air France service from Paris to New Zealand via Saigon and the K.L.M. and Air India, London-Singapore-Sydney services also call at Darwin. Regular inland services to Darwin with, in some cases, intermediate stops at Territory centres are operated by Trans-Australia Airlines (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd. (from Perth and Wyndham). MacRobertson-Miller Airways Ltd. and Connellan Airways Ltd. operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

4. **Railways.**—The Commonwealth Railways Commissioner, under the Commonwealth Railways Act 1917-1957, operates the Central Australia Railway from Port Augusta to Alice Springs over a distance of more than 750 miles, of which about 200 are in the Northern Territory. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft. 6 in. gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. A road-rail freight service operates between Adelaide and Darwin.

The Clapp plan for the standardization of Australian railways recommended, *inter alia*, the construction of a standard gauge (4 ft. 8½ in.) strategic and developmental railway between Dajarra (Queensland) and Birdum, and the conversion to standard gauge of the Birdum-Darwin line, but not the conversion of the Port Augusta-Alice Springs line nor the construction of a 4 ft. 8½ in. line between Alice Springs and Birdum. Provision for both of the last two projects, however, was included in an agreement with South Australia enacted in 1949.

5. **Roads.**—During the war, roads were built connecting Alice Springs with Darwin, and Mount Isa (Queensland) with Tennant Creek. The first of these roads, known as the North-South Road or Stuart Highway, is 954 miles long, and runs via Larrimah and Tennant Creek. The Mount Isa-Tennant Creek Road (Barkly Highway) is 403 miles long and joins the Stuart Highway some 16 miles north of Tennant Creek. Both were used extensively during the war and the Stuart Highway, in particular, experienced very heavy and continuous traffic. The highways are now used for carrying various freights including cattle, particularly to and from the railheads at Alice Springs, Birdum and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 12,000 miles of road in the Territory of which 1,325 miles are sealed.

6. **Posts, Telegraphs, Telephones and Wireless.**—Postal communication is maintained by road and rail transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service

between Fremantle and Darwin. Mail is also carried between the capital cities of Australia and Darwin by the airway companies operating in each State. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs in a northerly direction from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world.

Long-distance telephone communication is established between Darwin and the capital cities of Australia, and oversea telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin and Alice Springs. The majority of homesteads on pastoral leases are equipped with pedal wireless sets operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor Bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales) and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

§ 8. Education.

1. **European.**—Schools for European and part-European children in the Territory are conducted for the Commonwealth, on an agreed basis of reimbursement, by the South Australian Department of Education which is represented in Darwin by an Assistant Supervisor of Education, Northern Territory Schools.

At 30th June, 1958, there were 12 Government schools in the Territory with 2,762 pupils, providing instruction according to the South Australian curriculum. Classes up to the Leaving Certificate are provided at Alice Springs and at Darwin there is a separate High School with classes up to the Leaving Certificate.

Children of primary and pre-Intermediate secondary standard who live more than 10 miles from an established school receive an allowance of £80 per annum plus fare concessions if they board away from home in order to attend school. Nine exhibitions are available annually on the results of the Intermediate Certificate, the maximum benefits being £110 per annum and annual return fares if the recipients are required to board away from home in order to attend school.

Approximately 140 children receive correspondence education under the South Australian Correspondence School system. The "School of the Air" supplements normal correspondence instruction for certain children. Some of these live as much as 500 miles distant from Alice Springs, from which point the "School of the Air" is conducted. Two twenty-minute sessions and one half-hourly session are given each day and a unique feature of the "School of the Air" is the "Question and Answer" section which forms a part of every session. Children with access to radio transceivers are able to ask questions of their teacher and all other pupils listen to the answers. One session a week is for pre-school children.

Nine pre-school centres have been established in the Territory. Of these, eight reach the required standards for subsidy by the Administration of the amount of the salary of a trained pre-school teacher. Seven centres occupy buildings specially erected for the purpose at the expense of the Administration, and another centre occupies a building purchased by the Administration. Two scholarships are offered each year for Territory girls to qualify as pre-school teachers.

2. **Special Aboriginal Schools.**—The social, cultural and educational background of the aboriginals has made necessary the establishment of special schools for them. It is envisaged that this necessity will ultimately pass. As from the beginning of the 1956 school year, control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Eleven schools have so far been established. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk and school clothes are supplied to the pupils. In addition to the eleven Administration schools, fourteen schools for aboriginal children are conducted by Missions with the aid of Government subsidies. Also, two schools aided by Government subsidies and two unsubsidized schools have been established on pastoral properties and the establishment of others along similar lines is planned.

3. **Theoretical Training of Apprentices.**—The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

§ 9. Native Welfare.

The Welfare Ordinance, which came into operation on 13th May, 1957, established the principle that native people would be committed to the care of the State only on the grounds of their need for special care and assistance and not on the grounds of race or colour and it laid on the Director of Welfare a positive responsibility for the advancement of wards in his care. The Employment Ordinance provides for the training of wards and assistance in establishing them in occupations, either on their own account or as employees. The Ordinance envisages, among other forms of training, apprenticeships for the better-educated wards and training on the job for those wards not yet capable of entering into apprenticeships. It also envisages financial aid to natives or groups of natives who, under the guidance of the Director, may be able to engage in activities (for example in agriculture, cattle raising, hunting or fishing) on their own behalf. The Director of Welfare is responsible for supervising employment for the wards in his care, and protective legislation for those in employment is retained. The legislation does not, of course, apply to any persons who are not wards and native people who have ceased to be wards will come within the normal industrial customs of the country.

§ 10. Finance.

Details of revenue and expenditure of the Territory for the years 1953–54 to 1957–58 are shown below. The information given covers the transactions of the Commonwealth Consolidated Revenue Fund relating to the Northern Territory and the transactions of the North Australia Railway.

NORTHERN TERRITORY: REVENUE AND EXPENDITURE.

(£.)

Item.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
REVENUE.					
<i>Taxation—</i>					
Probate and Stamp Duties ..	6,292	9,928	7,765	10,499	22,861
Motor Registration ..	25,882	36,694	41,528	42,994	47,476
<i>Total</i>	<i>32,174</i>	<i>46,622</i>	<i>49,293</i>	<i>53,493</i>	<i>70,337</i>
<i>Business Undertakings—</i>					
North Australia Railway ..	68,411	69,494	85,559	130,083	182,324
Electricity Supply ..	259,687	264,969	311,158	375,207	418,482
<i>Total</i>	<i>328,098</i>	<i>334,463</i>	<i>396,717</i>	<i>505,290</i>	<i>600,806</i>
<i>Other—</i>					
Rent and Rates	127,852	143,152	187,068	210,356	278,342
Miscellaneous	227,110	188,169	189,064	268,159	348,161
<i>Total</i>	<i>354,962</i>	<i>331,321</i>	<i>376,132</i>	<i>478,515</i>	<i>626,503</i>
Grand Total ..	715,234	712,406	822,142	1,037,298	1,297,646

NORTHERN TERRITORY: REVENUE AND EXPENDITURE—continued.
(£.)

Item.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
EXPENDITURE.					
<i>Public Debt Charges—</i>					
Interest(a)	133,866	135,546	124,561	122,489	123,003
Debt Redemption(b)	69,194	72,651	76,283	80,096	84,100
Other(c) .. ..	..	7,029	..	..	..
<i>Total</i>	<i>203,060</i>	<i>215,226</i>	<i>200,844</i>	<i>202,585</i>	<i>207,103</i>
<i>Business Undertakings—</i>					
North Australia Railway ..	139,324	158,383	183,268	238,750	220,615
Electricity Supply	268,307	275,423	282,976	300,961	288,633
Water Supply	73,495	64,736	83,959	79,866	95,429
Hostels Loss	25,159	31,607	41,849	36,339	29,468
<i>Total</i>	<i>506,285</i>	<i>530,149</i>	<i>592,052</i>	<i>655,916</i>	<i>634,145</i>
<i>Social Expenditure—</i>					
Aboriginal Affairs	354,266	413,833	421,412	508,743	684,308
Educational Services	94,578	132,311	131,548	160,815	208,162
Public Health, Recreation and Charitable	547,680	586,158	668,835	751,766	(d) 795,953
Law, Order and Public Safety	32,738	48,520	52,291	63,567	92,914
<i>Total</i>	<i>1,029,262</i>	<i>1,180,822</i>	<i>1,274,086</i>	<i>1,484,891</i>	<i>1,781,337</i>
<i>Capital Works and Services—</i>					
North Australia Railway ..	229,861	141,529	93,371	79,812	85,595
Water Supplies, Roads, Stock Routes, etc.	142,402	115,873	106,344	110,987	377,218
Buildings, Works, Sites, etc.	1,162,146	1,565,381	2,467,573	2,175,099	2,416,750
Plant and Equipment	137,096	137,338	214,117	336,344	322,665
Additional Working Account (Northern Territory Ser- vices Trust Account)	10,000	..	..	..	..
Loans for housing .. ..	..	..	73,000	176,000	105,000
Loans for encouragement of Primary Production .. ..	..	..	..	..	53,589
Other .. ..	..	..	..	..	25,000
<i>Total</i>	<i>1,681,505</i>	<i>1,960,121</i>	<i>2,954,405</i>	<i>2,878,242</i>	<i>3,385,817</i>
<i>All Other—</i>					
Territory Administration ..	735,215	772,476	1,048,967	1,313,044	d1,529,533
Developmental Services	140,541	126,797	128,717	148,472	169,366
Municipal, Sanitary and Gar- bage Services	81,796	72,866	83,466	71,831	(e) 209,969
Shipping Subsidy	3,800	3,800	3,800	3,500	2,000
Airmail Service Subsidy	11,708	18,300	35,229	35,416	29,197
Railway Freight Concessions	20,367	24,039	20,200	21,280	21,880
Rent, Repairs and Mainte- nance, n.e.i.	152,768	178,242	191,528	233,898	249,266
<i>Total</i>	<i>1,146,195</i>	<i>1,196,520</i>	<i>1,511,907</i>	<i>1,827,441</i>	<i>2,211,211</i>
Grand Total	4,566,307	5,082,838	6,533,294	7,049,075	8,219,613

(a) Includes North Australia Railway Interest and Exchange, 1953-54, £83,633; 1954-55, £86,403; 1955-56, £76,634; 1956-57, £75,906; 1957-58, £77,854. (b) Includes North Australia Railway Debt Redemption, 1953-54, £40,000; 1954-55, £41,997; 1955-56, £44,096; 1956-57, £46,300; 1957-58, £48,614.

(c) Railways Loan Redemption and Conversion Expenses. (d) Not comparable with previous years, see Note (e). (e) Includes expenditure on Mosquito Prevention and Cemeteries formerly included under Public Health and on Botanical Gardens formerly included under Territory Administration.

THE AUSTRALIAN CAPITAL TERRITORY.

1. *Introductory.*—Information regarding the selection and establishment of Canberra as the Australian capital city, the physiography of the Territory and its early history will be found in earlier issues of the Official Year Book—*See* List of Special Articles, etc., at the end of this volume under “Canberra” and “Federal Capital City”.

On 12th March, 1913, the official ceremony to mark the start of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony, the selection of “Canberra” as the name of the capital city was announced.

On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York—afterwards His Majesty King George VI.—the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—afterwards His Majesty King George V.—on 9th May, 1901. (For particulars of the opening ceremony *see* Official Year Book No. 21, p. 604.)

The development of the Territory administration prior to the taking over of control by the Federal Capital Commission on 1st January, 1925, is described in summarized form in Official Year Book No. 18, and in Official Year Book No. 22 a summary is given of the administrative activities of the Federal Capital Commission. The administration of the Territory by this authority was continued until 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government.

Since April, 1932, the general control of the Territory has been exercised by the Minister for the Interior, certain specific services, however, being undertaken by the Department of Health, the Department of Works, the Attorney-General's Department, and the National Capital Development Commission.

An amendment to the Seat of Government Acceptance Act in 1938 provides that the Territory shall be known as the Australian Capital Territory.

2. *Progress of Work.*—(i) *General.* The National Capital Development Commission Act 1957 provided for a Commission to take over from the Departments of the Interior and Works the functions of the acquisition of land and the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The Commission commenced operations on 1st July, 1958, work and construction being carried out under the supervision of the Department of Works on behalf of the Commission.

The total expenditure on capital and maintenance works in the works programme amounted to £11,201,511 in 1958–59.

The combined labour force of the Department of Works and contractors working for the Department totalled 3,246 men at 30th June, 1959.

(ii) *Works Programme.* (a) *Housing.* During 1958–59, 1,290 dwelling units were completed, all being built by contract. The number of houses of each type completed was as follows:—Brick 466, brick veneer 189, brick flats 354, timber 29, monocrete 133 and masonry veneer 119. Of the total units built, 283 were built in the suburb of Campbell, 198 in Dickson, 192 in Lyneham, 176 in Braddon, 127 in Turner, 95 in Barton and 68 in Ainslie. The remaining 151 were built in Deakin, Griffith, Narrabundah, O'Connor, Pierces Creek, Reid, Yarralumla and Woden. More than 98 per cent. of the units built were for the National Capital Development Commission. At 30th June, 1959, there were 447 houses and 514 flats under construction.

(b) *Other Building.* Major projects completed during the year 1957–58 included primary schools at North Ainslie and Lyneham, the administrative building, the brick-works reconstruction programme, a transport depot and electrical workshops at Kingston, completion of the Canberra abattoirs, a new office block at Barton, and the Manuka telephone exchange.

At 30th June, 1959, the new Lyneham High School was 76 per cent. complete. Other major building works under construction at 30th June, 1959, were the erection of a primary school at Red Hill, extensions to Telopea Park High School, Goodwin Homes at Ainslie, a military instruction wing at the R.M.C., Duntroon, W.R.A.N.S. quarters at H.M.A.S. *Harman* and a dental clinic.

(c) *Engineering Works and Services.* The length of city roads at 30th June, 1959, was 235 miles, comprising three miles of concrete, 178 miles of bitumen paved and 54 miles of gravel. At the same date, the length of city footpaths was 203 miles. During 1958-59, about 35 miles of city roads were sealed and road maintenance works included the resealing of 16 miles of city roads. Major projects were the completion of the Wattle Street bridge in O'Connor and two bridges on the Cooma Road. Other projects carried out were the construction of a parking area at the Administrative Block and a 12" concrete apron at the R.A.A.F. Station, Fairbairn. Considerable maintenance work and alterations were carried out on all city and country roads.

During 1958-59, 86,930 feet of water mains were laid to reticulate water services to new buildings. At 30th June, 1959, 10,261 houses were connected to the water supply system and of this number 9,959 were metered. The consumption for 1958-59 was 2,247 million gallons with an average daily consumption of about 147 gallons per head.

The six million gallon storage reservoir at Weetangera Road was completed during the year and construction commenced on the new dam on the Upper Cotter River, the design of which is unique in Australia in that it is a thin double curvature concrete arch structure with overlapping spillway. Other projects were the commencement of a one million gallon reservoir at Russell Hill and the completion of water mains to Queanbeyan, Ginninderra and the Weetangera Road reservoir.

During 1958-59, 65,400 feet of sewer mains were laid to connect newly built houses to the sewerage system and 9,978 houses and buildings had been connected to the sewerage system by 30th June, 1959.

3. *Forestry.*—A considerable amount of reafforestation work has been undertaken and plantations (mainly *Pinus radiata*) have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills and Kowen. Experimental plots have been established in the Brindabella mountains and soil conservation areas at various locations throughout the Territory.

The total area of softwood plantations at 31st December, 1958, was 20,700 acres, of which 18,700 acres were *Pinus radiata*, the balance consisting of other softwood species, chiefly *Pinus Ponderosa* and *Pinus nigra*.

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly on decorative lines, but since then a much wider programme has been undertaken. Sawmill timber is now being obtained mainly from thinning operations. The yearly output of pine logs has increased from 2,500 cubic feet in 1930-31 to over one million cubic feet at the present time, the total amount cut to date being about 10.5 million cubic feet. The present output consists of approximately 50 per cent. logs yielding building material, and 50 per cent. case-making material.

In 1926, a comprehensive review was undertaken of the Territory's potentialities for forest development. The existing forest area has been placed under management and a considerable amount of survey and assessment work has been completed, resulting in the extension of operations, including fire protection, to 100,000 acres of hardwood forests in the Cotter catchment area. Hardwood log production during 1958 amounted to over 240,000 cubic feet, all of which was used in building operations in Canberra. The total amount of hardwood cut from Australian Capital Territory forests to date is about 3,254,000 cubic feet.

4. **Lands.**—(i) *General.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and Chapter IV.—*Land Tenure and Settlement*, of this issue contains statistical information on the subject.

Under the Seat of Government (Administration) Act 1910, Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of that Act. Leases of land in the city area are granted under the City Area Leases Ordinance 1936–1957, and leases of other lands under the Leases Ordinance 1918–1958. Land is also leased for various purposes in the city area under the Church Lands Leases Ordinance 1924–1932 and the Leases (Special Purposes) Ordinance 1925–1943, while one lease under the Church of England Lands Ordinance 1926 has been granted for church purposes.

Under the City Area Leases Ordinance 1936–1957, the Government may grant leases of any Crown land in the city area for business or residential purposes. Such leases may be issued for a period not exceeding 99 years at a rental equal to five per cent. per annum of the unimproved value of the land, which value is subject to re-appraisal at the expiration of 20 years, and thereafter every 20 years. A suitable building must be commenced within six months and completed within 12 months unless an extension of time is allowed.

As considerable portions of the Territory lands are not immediately required in connexion with the establishment of the city, large areas have been leased for agricultural or grazing purposes. Leases may be granted for grazing, dairying, fruitgrowing, horticulture, agriculture or other purposes for periods not exceeding 50 years. The annual rental is 5 per cent. of the assessed value of the land inclusive of rates, the rental being subject to re-appraisal every 10 years.

(ii) *Jervis Bay Territory.* The Commonwealth acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital Territory. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. It was, however, re-established at the original site as from the beginning of 1958. Some 13,000 acres of land in the Jervis Bay area, mostly of little value agriculturally, have been leased for short terms from time to time, chiefly for grazing purposes. The natural forest is being utilized for the production of hardwood building material and the area treated is being reforested with softwoods on an experimental basis.

5. **Transport and Communication.**—Canberra is connected with the railway system of New South Wales at Queanbeyan by a line $4\frac{1}{4}$ miles long. This line was opened for goods traffic on 25th May, 1914, and for passenger traffic on 15th October, 1923. The railway terminus is situated in the suburb of Kingston. A daily passenger service operates between Canberra and Sydney and Canberra and Melbourne.

Two airlines provide several services daily each way on the Sydney–Canberra–Melbourne route.

Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia.

There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station.

6. **Population.**—From 1911 until 1921, the population of the Territory remained at about 2,000 persons. In 1922, it commenced to rise, and by 1927 was nearing 6,000. The following year, with the transfer of departments from Melbourne, it passed 8,000.

The population at the Census of 30th June, 1947, was 16,905 persons—15,156 in the city area, 1,389 in the rural districts and 360 in the Jervis Bay area—and at the Census of 30th June 1954, it was 30,315 persons, 28,277 being in the Canberra city area and 517 in the Jervis Bay area. At 30th June, 1959, a population count showed that there were 43,973 persons in the Canberra city area. At the same date the estimated population of the Territory was 46,070.

7. **Production.**—During 1958–59, the production of the more important items of the agricultural and pastoral industry was—Wheat, 39,816 bushels; wool, 2,522,000 lb; whole milk 968,000 gallons; meat (bone-in weight, fresh), 3,424 tons. The numbers of livestock depastured at 31st March, 1959, were—Horses, 690; cattle, 9,408; sheep, 271,892; and pigs, 175.

8. **Education.**—The Australian Capital Territory Education Ordinance provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of the Interior is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31st October, 1959, there were three public secondary schools in Canberra providing courses to the Leaving Certificate standard, Canberra High School, Acton; Telopea Park High School, Barton; and Lyneham High School, Lyneham; while fourteen schools provided courses for children in infants and primary classes, including two in the Jervis Bay area and three in rural districts. A school for mentally handicapped children was opened early in 1955.

At the same date, there were nine private schools in Canberra. Of these, St. Edmund's Christian Brothers College, Catholic Girls High School, Canberra Grammar School (Boys) and Canberra Church of England Girls' Grammar School provide courses leading to the Leaving Certificate Examination.

Eighteen pre-school centres, including an occasional care centre and a mobile unit which visits outlying areas provide pre-school facilities for approximately 1,400 children between the ages of three and five years.

The Canberra Technical College, which follows the curriculum set by the New South Wales Technical Education Department, provides trades courses for apprentices, vocational (non-trades) courses including accountancy, women's handicrafts, and sheep and wool courses, hobbies courses including ceramics, dressmaking, art, woodwork and motor maintenance, and courses for Commonwealth authorities, including workshop practice for Royal Military College cadets, motor maintenance for Australian Forestry School cadets and shorthand and typing courses for the Public Service Board. In addition, the Technical College undertook the trade testing of migrants seeking to enter skilled trades.

Education at university level is provided by the Canberra University College, details of which will be found in Chapter XV.—Education.

An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research, and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Further reference to this University appears in § 8 of Chapter XV.—Education.

9. Finance.—Details of revenue and expenditure for the years 1953–54 to 1957–58 as recorded in the Commonwealth Consolidated Revenue Fund are given in the following table:—

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE.
(£.)

Item.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
REVENUE.					
<i>Taxation</i>					
Motor Registration	47,998	53,768	79,229	91,198	101,695
Liquor	22,756	25,436	26,213	30,174	30,985
Rates	30,306	38,333	51,542	63,583	72,165
Other	935	1,149	990	402	1,938
<i>Total</i>	<i>101,995</i>	<i>118,686</i>	<i>157,974</i>	<i>185,357</i>	<i>206,783</i>
<i>Business Undertakings—</i>					
Railways	14,557	29,233	15,168	20,531	18,532
Electricity Supply	471,410	510,852	(a)	(a)	(a)
Water Supply and Sewerage	25,390	26,706	24,361	27,736	31,440
Abattoirs	27,115	29,254	31,410	32,436	35,654
<i>Total</i>	<i>538,472</i>	<i>596,045</i>	<i>70,939</i>	<i>80,703</i>	<i>85,626</i>
<i>Rent—</i>					
Housing	502,096	556,725	585,940	628,615	691,455
Land	110,080	88,150	115,970	146,751	223,917
Miscellaneous	16,196	8,473	8,956	9,157	11,313
<i>Total</i>	<i>628,372</i>	<i>653,348</i>	<i>710,866</i>	<i>784,523</i>	<i>926,685</i>
Interest	22,300	25,032	52,388	(b)	(b)
Fees for Services and Fines	21,559	40,273	45,991	65,409	80,781
Sale of Houses—Mortgages and Cash Sales	155,596	283,751	361,299	(c) 354,189	(c) 324,337
Other	94,628	88,400	128,260	(c) 153,907	(c) 105,509
<i>Grand Total</i>	<i>1,562,922</i>	<i>1,805,535</i>	<i>1,527,717</i>	<i>1,624,088</i>	<i>1,729,721</i>
EXPENDITURE.					
<i>Public Debt Charges—</i>					
Interest	183,086	180,659	180,826	177,527	177,425
Debt Redemption	89,884	94,323	99,025	103,960	109,152
Other . . . . .	..	336	..	..	..
<i>Total</i>	<i>272,970</i>	<i>275,318</i>	<i>279,851</i>	<i>281,487</i>	<i>286,577</i>
<i>Business Undertakings(d)—</i>					
Railways	42,721	39,705	44,530	50,274	49,750
Electricity Supply	504,559	542,939	(a)	(a)	(a)
Water Supply and Sewerage	83,047	81,642	166,781	195,859	222,415
Abattoirs	20,379	20,933	24,782	26,432	30,829
Brickworks Loss	30,000	18,000	18,000	..	..
Transport Services(e)	60,000	64,000	70,000	60,000	72,000
Firewood Supplies Loss	1,000	1,000	1,000	1,000	..
Hostels(f)	33,542	9,075	22,726	22,479	37,337
<i>Total</i>	<i>775,248</i>	<i>777,294</i>	<i>347,819</i>	<i>356,044</i>	<i>412,331</i>

NOTE.—For notes see end of table, page 124.

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE

—continued..

(£.)

Item.	1953-54..	1954-55.	1955-56.	1956-57.	1957-58.
<i>EXPENDITURE—continued.</i>					
<i>Social Expenditure (d)—</i>					
Education—					
Primary and Secondary ..	239,525	296,783	327,162	408,353	441,321
Technical College ..	38,490	42,190	47,322	48,692	52,809
University ..	64,882	79,625	113,110	157,009	183,740
Science, Art, Research, etc. ..	5,727	5,691	6,351	6,206	6,263
Nursery Schools and Pre-School Centres ..	18,749	19,624	23,376	25,708	29,067
Public Health and Recreation ..	88,820	89,755	95,314	103,752	113,492
Charitable—					
Hospital—General ..	135,328	141,831	189,211	260,720	298,669
Relief of Aged, Indigent, etc. ..	3,227	3,241	3,427	4,684	4,166
Other ..	14,801	17,225	20,450	22,796	28,899
Law, Order and Public Safety—					
Justice ..	22,467	25,767	26,773	28,999	34,675
Police ..	86,413	87,126	98,720	109,710	142,462
Public Safety ..	20,559	19,658	20,016	26,823	34,376
<i>Total</i> ..	<i>738,988</i>	<i>828,516</i>	<i>971,232</i>	<i>1,203,452</i>	<i>1,369,939</i>
<i>Capital Works and Services (g)—</i>					
<i>Business Undertakings—</i>					
Railways ..	2,562	7,432	5,948	3,923	1,957
Electricity Supply ..	138,162	160,045	201,988	281,244	326,379
Water Supply and Sewerage ..	408,365	408,781	625,760	932,323	1,077,734
Abattoirs ..	4,992	9,526	18,827	80,732	36,888
Transport Services ..	18,996	44,191	93,727	22,000	69,500
Brickworks ..	21,154	..	..	..	..
<i>Total</i> ..	<i>594,231</i>	<i>629,975</i>	<i>946,250</i>	<i>1,320,222</i>	<i>1,512,458</i>
<i>Social Expenditure—</i>					
Primary and Secondary Education ..	151,192	193,081	284,762	328,131	797,649
Technical College ..	..	..	..	..	..
University ..	23,741	10,309	7,770	9,048	6,623
Public Health and Recreation ..	64,674	86,147	26,786	7,345	16,166
Hospital—General ..	2,485	..	..	1,943	..
Police ..	3,664	8,212	10,342	10,131	7,153
Public Safety ..	..	..	..	..	..
<i>Total</i> ..	<i>245,756</i>	<i>297,749</i>	<i>329,660</i>	<i>356,598</i>	<i>827,591</i>
<i>Other—</i>					
Roads and Bridges ..	208,391	249,980	389,319	471,698	683,463
Parks and Gardens, etc. ..	23,927	21,348	34,164	50,963	68,543
Lands and Surveys ..	1,367	1,052	120	185	..
Forestry ..	45,871	67,805	72,771	71,777	74,137
Housing ..	1,168,499	1,507,204	2,545,520	1,998,157	4,262,181
Civil Aviation ..	(h)	(h)	12,787	112	25,539
Public Works, n.e.i. ..	356,351	573,934	869,514	690,880	967,774
<i>Total Capital Works and Services</i> ..	<i>2,644,393</i>	<i>3,349,047</i>	<i>5,200,105</i>	<i>4,960,592</i>	<i>8,421,686</i>

NOTE.—See next page for notes.

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE

—continued.

(£.)

Item.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
EXPENDITURE—continued.					
<i>All Other—</i>					
Roads and Bridges	208,733	199,111	239,748	301,870	295,810
Parks and Gardens, etc. ..	220,008	246,933	252,251	281,173	307,779
Lands and Surveys	53,125	47,745	54,530	56,323	58,416
Agriculture and Pasture ..	18,386	22,208	22,874	23,714	24,953
Forestry	7,000	5,000	5,000	..	..
Housing	101,254	121,179	164,584	228,240	237,110
Civil Aviation	(h)	(h)	24,368	31,345	33,439
Legislative and General Admini- stration	211,726	266,081	296,385	293,551	329,739
Public Works, n.e.i.	25,828	30,290	31,543	48,132	42,572
Miscellaneous (i)	64,036	9,039	43,808	40,581	45,847
<i>Total</i>	<i>910,096</i>	<i>947,586</i>	<i>1,135,091</i>	<i>1,304,929</i>	<i>1,375,665</i>
Grand Total	5,341,695	6,177,761	7,934,098	8,106,504	11,866,198

(a) Transactions in Australian Capital Territory Electricity Supply Trust Account. (b) Not available separately. Included in "Sale of Houses" and "Other." (c) Includes Interest. (d) Other than Capital Works and Services. (e) Payment to Australian Capital Territory Transport Trust Account (loss on omnibus service). (f) Includes loss on operations, 1953-54, £24,000; 1954-55, £7,500; 1955-56, £7,500; 1956-57, £15,000; and 1957-58, £30,000. (g) Excludes repairs and maintenance. (h) Not available. (i) Includes restoration of bushfire damage, 1953-54, £53,701; 1954-55, £3,582; 1955-56 £1,391; 1956-57 and 1957-58, nil.

The following table, which was prepared by the Department of the Interior, shows the total receipts and expenditure of the Australian Capital Territory from 1911-12 to 30th June, 1958:—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE TO
30th JUNE, 1958.

Receipts.	£	Expenditure.	£
Commonwealth Treasury—		Lands	936,169
Parliamentary Appropriations—		Engineering works	18,800,571
Revenue	65,602,871	Architectural works	27,516,926
Loan	5,689,024	Other capital expenditure, sundry debtors, etc.	4,596,366
			51,850,032
		Seat of Government Establishment Account, being maintenance and administration less revenue; ex- penditure of a capital nature for which assets no longer exist; profit and loss accounts of trading activities, etc.	19,441,863
Total Receipts	71,291,895	Net Expenditure	71,291,895

(a) Excludes interest £6,771,657.

The foregoing figures exclude part cost of national buildings (Parliament House, the Secretariats, etc.), the Federal Highway within the Territory, the Queanbeyan-Canberra Railway, the housing loan, etc.

NORFOLK ISLAND.

1. **Area, Location, etc.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude $29^{\circ} 3' 30''$ S., longitude $167^{\circ} 57' 5''$ E. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney, it is distant 930 miles, and from Auckland, 660 miles. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° F. with a mean of 68° F. The average annual rainfall is 53 inches. It has been said that the healthy climate together with the beauty of its landscapes and seascapes, should make Norfolk Island "the Madeira of the Pacific".

2. **Settlement and Population.**—The first colonization, in 1788, was by Lieutenant King of H.M.S. *Supply*, who established a small penal station on the island as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813 and for 13 years thereafter the island was used chiefly as a whaling station and place of call for British warships.

From 1826 to 1855, it was again a penal station. In 1844, it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed to Norfolk Island in 1856. The new community, numbering 94 males and 100 females, were the descendants of British sailors and Tahitian women. The last of those transferred died at Norfolk Island on 1st March, 1943. The population of the island as disclosed by the Census of 30th June, 1954, was 942, consisting of 478 males and 464 females. The estimated population at 30th June, 1958, was 1,033 persons.

3. **Administration.**—In 1856, the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896, it was made a dependency under the Governor of that Colony, and finally, by the passage of the Norfolk Island Act 1913, it was accepted by the Federal Parliament as a territory of Australia. From July, 1914, until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, and then, until 25th June, 1941, by the Territories Branch of the Prime Minister's Department, but it is now controlled by the Minister for Territories through an Administrator. An amending measure, the Norfolk Island Act 1935, provided for the establishment of an Advisory Council of eight elected members which may advise the Administrator on matters affecting Norfolk Island.

The Norfolk Island Act 1957, which came into operation on 7th April, 1960, provides for variations in the administrative and judicial arrangements of the island. It also provides for a local government body, The Norfolk Island Council, which will replace the existing advisory council, but will retain its advisory functions in addition to having a certain autonomy in local government matters on the island.

4. **Economic Activity.**—The major economic activities of the island are primary production, whaling, the tourist trade and employment by Government instrumentalities.

(i) **Primary Industries.** The soil on the island is particularly fertile, the climate equable, and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation and trading difficulties with New Zealand hamper production. A relaxation of some restrictions enabled out-of-season fruit and vegetables up to a limit of 3,000 lb. a week to be sent by air freight to Auckland, but the air service was reduced to fortnightly from August, 1956.

Prior to 1939, the principal primary product was passion fruit pulp. However, the introduction of disease, together with the high cost of trellising and land reclamation, has led to the curtailment of this industry. The production of bean seed has now become the main export industry. The island's isolation from many plant diseases found on the mainland, plus the fairly reliable dry period (which is conducive to the setting and maturing of seed), together with improved prices, induced a rapid expansion of production. In 1958–59, 3,922 bushels were exported, but owing to a surplus in Australia, considerable quantities were unsold in October, 1959. The conditions on Norfolk Island also favour the production of other types of seed.

Island conditions are also conducive to good pasture growth but, for a number of reasons, meat production is insufficient to satisfy the demands of both the tourists and the local inhabitants. However, as a joint product of pastoral pursuits, quantities of hides and wool are exported.

Fish and, in certain months, whales abound off the island. In the past, a number of ventures have been formed to exploit these resources. They have been short-lived owing, for the most part, to the lack of a sheltered harbour. However, a modern whaling station was started on the island in 1955 and production commenced during the second half of 1956. The quota of 150 humpback whales in 1956, 120 in 1957 and in 1958 and 150 in 1959, was caught and processed at the station.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

(ii) *Tourists.* The unique history and unusual beauty of the island had always attracted a number of tourists. Before the 1939–45 War, the only means of transport to the island was by ship, but the building of the aerodrome in 1943 made the island far more accessible and a tourist industry has developed which is at present limited only by the accommodation available. Approximately 120 can now be catered for.

(iii) *Government Instrumentalities.* A large proportion of the population is employed by Commonwealth Government instrumentalities, namely:—Department of Civil Aviation, Norfolk Island Administration, Overseas Telecommunications Commission and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government and this greatly increases the income of the island.

5. *Trade, Transport and Communication.*—Imports to Norfolk Island in 1938–39 amounted to £27,590, mainly from Australia. Since the 1939–45 War, they have risen from £32,402 in 1945–46 to £237,059 in 1957–58. In 1957–58, the major proportion (£212,646 or 90 per cent.) still came from Australia, while New Zealand supplied £24,413 or 10 per cent. Exports were valued at £16,970 in 1938–39, and have risen from £9,024 in 1945–46 to £175,951 in 1957–58. The big increase is due mainly to the commencement of operations by the whaling station in the 1956–57 season. Australia was again the principal country concerned, exports thereto amounting to £166,520, while exports to New Zealand amounted to £4,312.

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are (a) the produce or manufacture of Norfolk Island; (b) shipped direct to Australia; and (c) not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately seven-week intervals by Burns Philp & Co. Ltd., Sydney. The route is from Sydney via Norfolk Island to the New Hebrides, Solomon Islands and other island groups and thence back to Sydney. Shipping between the island and New Zealand is infrequent.

The construction of the aerodrome on the island was completed during 1943. A fortnightly passenger and air freight service between Sydney and Norfolk Island maintained by Qantas Empire Airways Ltd. extends to New Zealand under charter to Tasman Empire Airways Ltd.

There are approximately 50 miles of usable road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab services are available, transport is almost exclusively by motor vehicle.

The cable from Great Britain via Vancouver, Fanning Island, and Fiji bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane. Until 10th June, 1947, the post office at the island was part of the Commonwealth postal system, but as from that date Norfolk Island was established as a separate postal administration with its own issue of stamps.

6. *Social Condition.*—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' super-primary course of instruction in cultural subjects and in woodwork, needlework, leatherwork, basketry and hat-making. The headmaster and assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1958, was 150. Dental examination and free dental service are provided for school children.

The Court of Norfolk Island is a court of record with dual jurisdiction. Sitting in its limited jurisdiction, the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its full jurisdiction, the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its limited jurisdiction, and exercise authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its full jurisdiction when constituted by a Judge or the Chief Magistrate.

7. **Finance.**—The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal sources of revenue in 1957–58 were:—Commonwealth subsidy, £33,133, customs duties, £10,439, sale of liquor, £8,721. The total revenue was £69,237. Items of expenditure in 1957–58 were:—administrative, £23,030; miscellaneous services, £25,016, repairs and maintenance, £7,162, capital works and services, £7,616, postal services, £3,507. Total expenditure amounted to £66,331.

PAPUA AND NEW GUINEA.

§ 1. Administration.

Following the outbreak of war, civil administration in Papua and in New Guinea was suspended on 11th February, 1942, and military control commenced. The Territory of New Guinea came under Japanese occupation in 1942, but the greater part had already been recaptured by Australian and Allied Forces when the Japanese surrendered in August, 1945. Information relating to the transfer back from military to civil control under the Papua-New Guinea Provisional Administration Act 1945–1946 may be found in Official Year Book No. 39 and earlier issues.

The Papua-New Guinea Provisional Administration Act 1945–1946 was repealed by the Papua and New Guinea Act 1949 which came into force on 1st July, 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, one Supreme Court and one Public Service.

Provision is made for an Executive Council of not less than nine officers of the Territory, who shall be appointed by the Governor-General, and a Legislative Council consisting of twenty-nine members, namely:—(a) the Administrator; (b) sixteen officers of the Territory (who shall be known as official members); (c) three non-official members possessing such qualifications as are provided by Ordinance and elected, as provided by Ordinance, by electors of the Territory; (d) three non-official members representing the interests of the Christian missions in the Territory; (e) three non-official native members; and (f) three other non-official members.

The Legislative Council was inaugurated on 26th November, 1951, by His Excellency Sir John Northcott, while Administrator of Australia.

Subject to the Act, provision may be made by Ordinance for the establishment of Advisory Councils for Native Matters and Native Village Councils.

The Act also makes provision for the continuance of the existing laws of the Territory of Papua and the Territory of New Guinea.

§ 2. Finance.

The following table shows particulars of the financial operations of the Papua and New Guinea Administration for the years 1953–54 to 1957–58. Further information on each Territory will be found on pages 131 and 136.

TERRITORY OF PAPUA AND NEW GUINEA: REVENUE AND EXPENDITURE.
(£.)

Particulars.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
REVENUE.					
Taxation—					
Customs Duties	1,931,851	2,089,143	2,443,734	2,504,415	2,760,649
Motor Registration	36,544	42,372	47,994	54,520	62,136
Stamp Duties	36,266	32,043	35,756	50,688	86,589
Licences	24,759	26,312	37,717	33,869	36,174
Personal .. .. .	..	..	..	..	103,486
Business Undertakings—					
Post Office	126,861	134,653	141,737	245,199	296,022
Harbour Dues, Wharfage, etc.	52,818	63,650	68,838	66,166	103,164
Electricity Supply	111,699	168,869	229,784	305,805	380,945
Sale of Timber	110,491	96,384	133,094	122,609	136,529
Copra and Rubber Production	41,352	44,508	69,722	40,267	61,766
Other Agricultural Production	16,760	13,970	17,564	..	..
Water Supply and Sewerage	23,462	15,267	16,946	16,922	18,676
Lands—					
Mining—					
Royalty on Gold	71,480	66,446	54,663	59,103	15,825
Other	8,977	9,412	9,597	9,467	10,446
Forestry	34,388	58,588	75,832	81,674	81,555
Land Sales, Rents, etc.	52,838	101,618	81,578	73,727	157,710
Commonwealth Grant	5,421,981	7,125,687	8,433,823	9,645,090	10,796,491
Fees and Fines	55,597	67,485	69,649	105,229	121,055
All Other	233,259	123,632	329,119	384,050	292,304
Total	8,391,383	10,280,039	12,297,147	13,798,800	15,521,522
EXPENDITURE.					
Business Undertakings—					
Post Office	275,457	363,989	546,510	540,104	607,037
Harbours	56,588	65,434	106,755	93,444	88,158
Electricity Supply	310,137	321,598	359,192	395,333	289,742
Saw-mill	88,897	85,358	99,700	101,151	82,247
Water Supply and Sewerage	71,693	83,284	109,354	119,478	114,002
Social Expenditure—					
Education	389,590	466,291	602,906	780,928	835,123
Grants to Missions for Education	90,342	107,036	102,045	100,826	180,605
Public Health, Hospitals, etc.	1,245,493	1,655,817	1,921,634	1,933,637	1,645,761
Mission Medical Services—Grants	130,043	191,295	245,701	274,258	232,239
Law, Order and Public Safety	542,221	608,729	701,236	733,928	544,230
District Services and Native Affairs—					
Compensation to Natives for War Damage	196,504	92,135	67,712	..	..
Other	750,218	808,941	1,003,001	1,120,516	1,013,501
Capital Works and Services	2,258,150	3,142,899	3,332,416	3,713,896	4,326,456
All Other	1,929,765	2,255,997	2,948,630	3,829,038	5,556,902
Total	8,335,098	10,248,803	12,146,792	13,736,537	15,516,003

§ 3. Agriculture and Animal Industry.

1. **Soils.**—Although a large proportion of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all parts where fertile soils occur, suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolized alluvium. So far, these have been mostly under coconut plantations, although other crops such as rubber and cocoa have also been grown. The swamp soils, of which there are extensive areas in the Delta plains and other parts of the Gulf of Papua, and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the Central Plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

2. **Climate.**—The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, naturally presents many variations. Generally speaking, the climate is moist and tropical, except at high altitudes. There are only small differences in both daily and seasonal extremes. The Territory has no winter and summer, and thus no great variation in day-length over the year. The two seasons which are experienced are generally described as the "south-east" and the "north-west", corresponding with the periods of the year when the south-east trade winds and the north-west monsoons direct the main Territory air-flow. The south-east season prevails approximately from May to October, the trade winds attaining maximum velocities during July and August. The north-west monsoon operates over a considerably shorter period, between the end of December and about March. During the periods between these seasons, November and early December, and about March to April, there are two short spells of calm weather.

Rainfall varies considerably, from an average annual rainfall of 245 in. at Gasmata in New Britain and 231 in. at Kikori in Papua, to about 88 in. at Wewak in New Guinea and 40 in. at Port Moresby.

Although the Territory has no summer and winter, it has a wide temperature range, due to differences in altitude, varying from an absolute highest temperature of about 100° F. along the coast, to freezing point on its highest peak, Mt. Wilhelm (15,400 ft.).

Humidity in the Territory is very high throughout the year. Some coastal stations register an average relative humidity of more than 90 per cent. Humidities below 60 per cent. are rare at coastal stations, average figures varying from 80 per cent. at 9 a.m. to 65 per cent. at noon and 75 per cent. at 3 p.m. Humidity in mid-mountain forests appears to be higher than in the lowlands, while in the mossy forests there are periods when the whole belt is saturated.

3. **Suitable Crops.**—The crops which can be grown in Papua and New Guinea include coconuts, rubber, tea, coffee, cocoa, jute, kenaf, manila hemp, sisal, rice, pepper, tobacco, peanuts, kapok, cassava, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago and tung oil, but of these, the only crops of any commercial importance are coconuts, coffee, cocoa and rubber.

4. **Plantation Agriculture.**—*Coconuts.* Territory coconut plantations suffered severely from damage and neglect during the 1939–45 War, but rehabilitation was rapid and, in 1957–58, about 500 plantations together with native coconut stands produced 71,831 tons of copra valued at £4,521,159 for export. In addition, 14,802 tons of coconut oil valued at £1,472,997 and about 8,705 tons of coconut meal and cake valued at £176,506 were exported in 1957–58. A copra crushing mill was established at Rabaul in 1952. Native stands produce about 25 per cent. of the copra exported.

Rubber. Rubber exports have increased from an average of 1,352 tons a year during the three years 1937–38 to 1939–40 to 4,259 tons in 1957–58, valued at £1,114,716.

Cocoa. Exports of cocoa beans increased from 207 tons in 1949–50 to 2,589 tons in 1957–58, valued at £828,458.

Coffee. Exports of coffee beans increased from 21 tons in 1949–50 to 385 tons in 1957–58, valued at £225,059.

5. **Native Agriculture.**—Most of the native inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude, and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar-cane, cassava, beans, peanuts, rice, cucurbits and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas, it is cut largely from naturally occurring stands. In other parts of the country, small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years, the natives have taken up the production of introduced crops such as peanuts, rice, cucurbits and maize for their own consumption and cocoa and coffee for export. In coconut areas, large quantities of copra are produced. In 1958–59, native copra production was estimated at about 24,400 tons.

In many localities, the natives follow a farming system known as "Bush Fallowing Rotation". The inhabitants of each village have, at any one time, a number of distinct and separate cleared garden areas in the land surrounding the village. The garden clearings may be located some miles from the village and are not usually contiguous. Each garden

area may be made up of a number of distinct plots owned by individual natives or families. Communal ownership of gardens is rare. The number of garden clearings (and their area) attached to each village depends on the size of the village and the fertility of the land.

The method of cultivation followed is for the jungle trees to be felled and undergrowth cleared with axes and knives, the larger trees being usually left standing. The timber and foliage is allowed to dry out and then burnt. In some localities, there is a little cultivation before the crops are planted, and root vegetables are placed in holes dug with a stick. In other places, however, there is careful preparation of the soil. Some weeding is done while the crops are growing. After harvesting, a second crop is rarely planted immediately in that garden area, but a new area of land is selected, cleared, burnt and planted. The natives return to the first area to harvest fruit from trees, such as papaw and banana, that may have been planted in the garden, but these are soon submerged in the new growth which quickly appears. The plot is allowed to lie fallow for a number of years, the period varying from 7 to 10 years or even longer, depending upon the local population pressure. During this time, high secondary jungle has probably grown. Ultimately the natives return to the original plot, and clear, burn and plant again. The cycle continues year by year throughout the agricultural land belonging to the village. The foregoing is a broad generalization of the method followed. There are, however, many variations.

The business of growing food is done by both the men and women. The division of work is usually clearly defined within the village itself but this division is not necessarily the same in all areas. Generally it is found that felling the forests is always done by the men, and carrying the harvested food home to the village is nearly always done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens, as well as for economic production of crops for sale, has a high priority in Government policy for the Territory.

6. Animal Industry.—Owing to loss by fire of records on which previous figures were based, comparable statistics for livestock populations at 31st March, 1958, are not available. Livestock species in the Territory include cattle, sheep, goats and pigs, approximate figures for each species being:—cattle, 13,000; sheep, 1,500; goats, 5,000; and pigs, 5,000. Other livestock includes horses, mules and poultry. These figures represent European-owned livestock only; native-owned livestock consists almost entirely of pigs and poultry.

A number of British breeds of cattle are represented in Territory herds. For dairying, Jersey and Australian Illawarra Shorthorns are most popular; Black Polled, Polled and Horned Shorthorns, and Red Polled cattle are raised for meat production. Under good management these breeds have done well in the Territory.

Most of the sheep now in the Territory are Romney Marsh breed located at Nondugl in the highlands of New Guinea.

The introduction of rabbits, foxes, hares and monkeys into the Territory is prohibited.

7. Co-operative Societies.—The following table sets out details of the number of societies, members, etc., for the year ended 31st March, 1959:—

CO-OPERATIVE SOCIETIES: YEAR ENDED 31st MARCH, 1959.

Type of Society.	Number of Societies.	Number of Members.	Turnover.	Rebates to Members.	Total Capital.	Total Fixed Assets.
			£.	£	£	£
Consumer Societies ..	10	2,796	116,628	474	29,833	12,792
Producer Societies ..	29	22,706	62,994	762	53,289	9,559
Dual Purpose Societies ...	181	47,228	637,792	15,455	359,963	48,115
Total	220	72,730	817,414	16,691	443,085	70,466

PAPUA.

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua are given in Official Year Book No. 19, page 576.

2. **Administration by the Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of 18th March, 1902, and was accepted by the Commonwealth by the Papua Act, 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is now under the control of the Commonwealth, but not included within it, and is divided into six magisterial districts, Southern Highlands, Western, Gulf, Central, Milne Bay and Northern.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 920 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,600 square miles, of which 87,806 are on the mainland, and 2,794 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (*see* No. 18, p. 633).

§ 2. Population.

1. **Non-indigenous Population.**—At the Census of 30th June, 1954, the non-indigenous population of Papua was 3,867 males, 2,446 females, 6,313 persons. Corresponding figures at the Census of 30th June, 1947, were, respectively, 2,057, 1,182, and 3,239.

The European population of Papua increased slowly, and with some reversals in trend, from less than 700 in 1906, the year in which the Territory came under Commonwealth control, to 1,343 at the Census of 1921. It numbered only 1,148 at the 1933 Census, but at the 1954 Census amounted to 5,295 (3,372 males and 1,923 females).

The non-European section of the non-indigenous population at 30th June, 1954, was 1,018, of whom 34 were full-bloods and 984 were half-castes with one of the parents a European. Comparable figures as at the 1947 and 1933 Censuses, respectively, were:—full-bloods—194 and 786; half-castes—503 and 227.

The estimated non-indigenous population at 30th June, 1958, was—Males, 5,085; females, 3,470; Europeans, 7,518; Asians, 12; and Others (mainly half-caste), 1,025; Total, 8,555.

2. **Native Population.**—It is not possible to give exact data regarding the number of natives, because part of the interior is not as yet under complete Government control. However, the enumerated and estimated population of the Territory of Papua at 30th June, 1958, numbered 478,595 persons. This comprised 334,395 enumerated persons (177,092 males and 157,303 females) and 144,200 estimated. The total number was distributed through districts as follows:—Southern Highlands, 137,425; Western 51,023; Gulf (including the former Delta district), 67,843; Central, 89,024; Milne Bay, 85,331; and Northern, 47,949.

§ 3. Native Labour, Taxation and Health.

1. **Native Labour.**—The laws relating to the employment of natives are uniform in Papua and New Guinea, and are contained in the Native Labour Ordinance 1950–1956. They provide for the engagement of natives under a permit. Permits are issued by a District Officer, and authorize the holder to engage natives for employment on his own behalf, or on behalf of a registered employer who has authorized him to act on his behalf. Under this Ordinance, a native may be issued with a Native Assistant's Permit, which authorizes him to solicit natives to work for his employer, or for other employers who have authorized him to act on their behalf.

Natives are employed under written agreements which have been sanctioned and attested by a District Officer. The period of the agreement must not exceed two years, but one further agreement, for a period not exceeding one year, may be drawn up, if both parties desire it. The period, in both cases, begins on the day on which the agreement is sanctioned and attested. Both parties may, by mutual consent, and with the approval of a District Officer, cancel an agreement. On the termination of an agreement, employers are required to repatriate workers to their own villages.

Natives under the age of sixteen years may not be employed. Employers must provide native employees with housing, medical attention, food and clothing free of charge. A minimum monthly wage of twenty-five shillings and a working week of 44 hours are prescribed by Ordinance. Provision is also made for compensation in the case of injury or death.

2. Taxation.—The main forms of taxation are income tax, personal tax and import duties.

Income tax was imposed on 1st August, 1959, to operate from 1st July, 1959. The scale of taxation is about 50 per cent. of the tax payable on the same taxable income in Australia. Deductions for dependents the taxpayer is maintaining and maximum deductions for medical, dental and educational expenses are considerably higher than those allowed in Australia. The tax on public companies is at a flat rate of 4s. in the £ which is a little over half the predominant rate of company tax in Australia, while on private companies the rate is 2s. 6d. in the £1 for the first £5,000 and 3s. 6d. for the remainder and generally, comparable deductions are allowed. On 1st January, 1958, a Personal Tax was introduced for all males (including non-indigenous) of 18 years of age and over, in Papua and New Guinea. The maximum tax is £2 per annum; the tax assessed is subject to the taxpayers' ability to pay and consequently large areas have been exempted. Native Local Government Councils (which are formed voluntarily by the natives) are however, empowered to levy taxes on villagers for the purpose of providing for local services carried out by the Councils. These taxes are set off against the native's Personal Taxation.

3. Health.—The Department of Public Health has the general oversight of all medical and dental services. It maintains a large number of hospitals, which are staffed by fully-trained European medical personnel and trained native assistants, for both European and native patients. The Department has adequate facilities for research in tropical medicine.

At 30th June, 1958, there were in the Territory three European hospitals (one privately controlled); 47 native hospitals (one private and 22 Mission); one mental hospital; 340 village aid posts (114 Mission); 101 welfare clinics (49 Mission); and two Hansenide colonies. The Missions employ their own doctors and nurses in their medical establishments. A training school has been established at Port Moresby, in association with the Port Moresby General Hospital, for the purpose of training natives in first aid, elementary physics, chemistry, anatomy, physiology and pathology in preparation for their employment as Native Medical Assistants. Natives are also attending the Central Medical School at Suva, Fiji, to be trained as Native Medical Practitioners and for other medical occupations. The chief complaints treated in hospital are malaria, yaws, tropical ulcers, respiratory infections, hookworm, venereal and skin diseases.

§ 4. Land Tenure.

The basic principle of the land laws of Papua is that all land not specifically alienated by due process from the natives, or established to be vacant and ownerless, is native land. At 30th June, 1959, of the total estimated area of Papua, approximately 58,000,000 acres, only 1,839,944 acres had been alienated. The distribution of alienated land at 30th June, 1959, according to tenure, was as follows:—Held by private non-indigenous inhabitants—freehold, 24,280 acres, leasehold, 316,167 acres; held by administration, 1,431,300 acres; native reserves, 68,197 acres; total, 1,839,944 acres.

Although, as the figures above show, a small amount of freehold land exists in Papua, no further estates in freehold can be granted under the provisions of the Land Ordinance 1911–1953 of Papua. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal and, in general, leases may be granted for periods of up to 99 years. Rent is based on the unimproved value of the land. For agricultural leases, the rental rate per annum is 5 per cent. of the unimproved value and for pastoral leases the rate is 2½ per cent. Concessions

regarding freedom from, or reduction of, rents apply during the early developmental periods of agricultural and pastoral leases. All leases are subject to improvement conditions which may be varied or relaxed under certain circumstances. The following classes of leases were in force in Papua at 30th June, 1959:—Agricultural, 666—268,031 acres; pastoral 31—42,437 acres; residence, 161—232 acres; special 271—2,132 acres; mission 390—1,036 acres; business, 151—275 acres; town allotment, 792—347 acres; agricultural leases granted to missions, six—677 acres; total 2,468—315,167 acres.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the Real Property Ordinance 1913–1955 modelled on the Torrens system of land registration. A start has been made on the recording of native land ownership under the Native Land Registration Ordinance 1952.

§ 5. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, forestry, mining and fishing industries. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, bananas and papaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Natives, however, do produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g., cocoa and coffee, is being encouraged. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of these commodities is increasing. Practically all the timber milled during 1955–56 was absorbed by local building requirements. The main products of fisheries exported from Papua are trochus and green snail shell. Gold, manganese, zinc-lead and copper ores have been mined in commercial quantities in the past but current production is limited.

For the sake of convenience, agricultural and pastoral conditions in Papua and New Guinea have been dealt with as a whole, and reference should be made to pages 128–130 for information on the soils, climate, crops, methods of cultivation, etc., throughout both Territories. The following paragraphs relate to forestry, mining, fisheries and water-power resources in Papua.

2. **Forestry.**—(i) *General.* A general description of the forest policy which applies in Papua as well as in the Trust Territory of New Guinea is given under the heading “Timber” on page 139.

(ii) *Timbers.* Mixed species tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilization on an economical basis is somewhat difficult. Kwila, the most important hardwood found in millable quantities in Papua and New Guinea occurs in important stands east of Port Moresby. Mangroves occur in large areas fringing the Gulf of Papua.

(iii) *Survey Work.* Forestry field work is being carried out in Papua with a view to assessing the forest resources available and to survey areas that will be thrown open for cutting. In the middle of 1956, tenders were called for approximately 50 million super. feet of logs on the Brown River area near Port Moresby, and the contract was subsequently let to a Port Moresby sawmiller.

(iv) *Permits.* At 30th June, 1958, 20 permits and 12 licences were current. The total areas of forest involved were 119,394 acres and 34,508 acres respectively. The total number of mills was 12, and the total sawn-timber produced for the year was 3 million super. feet, most of which was used locally.

3. **Mining.**—(i) *Variety of Minerals.* Although a large number of minerals have been found in Papua including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum and lignite, most deposits are not of economic importance.

Gold was discovered in 1888 and has been found since in many parts of Papua. Before the 1939-45 War, gold was an important item in the Territory's production and it was the major export in 1938-39 (valued at more than £150,000), but has dwindled to insignificance since the war. Gold production in 1954-55 was 1,065 fine oz. and in 1955-56 491 fine oz. compared with an average of almost 28,000 fine oz., for the last three pre-war years. During 1958-59, the production of gold realized £6,202, bringing the total value of gold won up to 30th June, 1959, to £3,343,427.

Large quantities of copper ore were mined and exported up to 1940. Good samples of galena (sulphide of lead) have been obtained, but other minerals are not found in commercial quantities.

(ii) *Oil Search.* Since the search for oil began in Papua in 1911, over £30 million has been spent. The existence of petroleum has been traced at scattered intervals over a large area, but commercial quantities have not been discovered. At 30th June, 1959, three companies held petroleum prospecting permits under the provisions of the Petroleum (Prospecting and Mining) Ordinance 1951-1958. Oil prospecting is, at present, confined mainly to the Gulf and Western Divisions.

4. *Fisheries.*—Surveys have been carried out of the fisheries resources of Papua. They have been demonstrated to be considerable and efforts are being made to increase the small degree of utilization. Shell fishing, particularly trochus, provides the main cash return, exports being valued at £43,276 in 1957-58.

5. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there is at least 10 million horse-power available for this purpose.

§ 6. Trade, Transport and Communication.

1. *Customs Tariff.*—The present customs tariff provides high revenue rates on ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods and jewellery but allows entry of most necessities affecting living and building costs duty free, or at a low rate of duty. There is a by-law provision under the Customs Tariff to enable duty-free admission to be granted for plant, machinery and chemicals to be used mainly for industrial and developmental purposes and for goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell and gold were repealed in July, 1959.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced in and imported direct from Papua (*see* Chapter XIII.—Trade), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

2. *Imports and Exports.*—(i) *Total Values.* The table below summarizes and compares the values of imports and exports for the years 1953-54 to 1957-58.

TERRITORY OF PAPUA: IMPORTS AND EXPORTS.
(£ f.o.b.)

Particulars.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
<i>Imports</i>	5,201,969	7,471,221	8,975,834	8,661,252	8,786,758
<i>Exports</i> —					
Domestic Exports ..	1,683,188	2,517,526	2,965,559	2,261,734	2,082,667
Re-Exports	304,376	308,170	398,976	504,588	693,385
<i>Total Exports</i> ..	1,987,564	2,825,696	3,364,535	2,766,322	2,776,052

(ii) *Imports.* The following table summarizes the countries of origin of imports. Since the 1939-45 War, Australia has supplied a far greater proportion of the imports than was the case pre-war.

TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS.

(£.)

Country of Origin.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Australia	3,788,492	5,119,030	5,759,504	5,838,299	5,632,004
Canada	3,914	6,473	7,254	7,657	101,575
Germany (Federal Republic) ..	(a)	(a)	144,273	103,576	141,409
Hong Kong	120,215	147,786	163,424	151,555	209,398
Indonesia	(a)	(a)	228,979	376,521	239,206
Japan	(a)	(a)	216,731	153,394	190,702
United Kingdom	381,883	619,807	1,131,401	550,585	689,640
United States of America	384,235	804,331	1,020,436	1,118,046	1,219,289
Other Countries	523,230	773,794	303,832	361,619	363,535
Total Imports ..	5,201,969	7,471,221	8,975,834	8,661,252	8,786,758

(a) Not available, included in "Other countries".

(iii) *Exports. (a) Countries of Destination.* The countries of destination of Papuan exports are shown below. The decrease during 1956-57 in the value of total exports was due mainly to the decrease in the prices of copra and shell. Australia imports practically the whole of the Territory's production of these items.

TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS.

(£.)

Country of Destination.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Australia	1,749,049	2,231,659	2,699,059	2,240,392	2,200,285
United Kingdom	161,896	536,724	610,832	396,921	386,532
Other Countries	76,619	57,313	54,644	129,009	189,235
Total Exports ..	1,987,564	2,825,696	3,364,535	2,766,322	2,776,052

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years. The decrease in value of total domestic exports during 1956-57 and 1957-58 was caused mainly by decreases in the prices of copra and shell.

TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS.

(£.)

Commodity.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Rubber	612,788	953,623	1,386,787	1,148,542	1,114,716
Copra	950,216	1,381,372	1,390,068	942,286	847,472
Other Coconut Products	27,211	..	..	..	..
Cocoa Beans	3,638	13,314	8,759	7,717	13,825
Gold	4,785	16,548	8,837	5,911	7,093
Shell (Marine)	38,803	111,652	137,938	101,265	43,276
Crocodile Skins	23,038	22,136	23,791	26,568	35,579
Other	22,709	18,881	9,379	29,445	20,706
Total Domestic Exports ..	1,683,188	2,517,526	2,965,559	2,261,734	2,082,667

3. **Shipping.**—In 1957–58, 157 British vessels and 17 of other nationalities called at Territory ports and discharged 95,019 tons of cargo and loaded 25,667 tons. Corresponding figures for 1956–57 were 163, ten, 93,698 and 26,844 respectively.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are occasional ships to the United Kingdom, vessels of one shipping line trading between the United Kingdom and Australia calling at Port Moresby approximately at quarterly intervals. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

4. **Other Forms of Transport and Communication.**—Air services link Papua with Australia, New Guinea and the British Solomon Islands. There were 48 aerodromes and seaplane alighting areas in Papua at 30th June, 1958, and of these 17 were the responsibility of the Department of Civil Aviation, 21 were operated and maintained by the Administration, and 10 owned and maintained by Missions, plantations and mining interests. Much of the internal traffic and freight is carried on a charter basis. Regular air services operate from Port Moresby to Daru in the West, Samarai and Popondetta in the East, and to various centres in New Guinea.

At 30th June, 1958 there were about 1,456 miles of road in Papua, of which nearly 436 miles were suitable for medium and heavy traffic, the greater proportion being located in the Central and Northern Districts, which are north-east of Port Moresby.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is jointly shared by the Overseas Telecommunications Commission and the Administration. The former provides a service between Papua, Australia and the Territory of New Guinea, while the latter operates radio telephone and radio telegraph services from Port Moresby and Samarai to outstations.

Medium and short-wave programmes are broadcast from the Australian Broadcasting Commission stations 9PA and VLT located at Port Moresby.

§ 7. Finance.

The principal source of revenue for the Territory is the annual grant received from the Commonwealth Government, which in 1957–58 amounted to £4,607,669. Customs duties, £969,688 in 1957–58, are next in importance. The total revenue during 1957–58 was £6,406,674 compared with £5,648,104 in 1956–57. Of a total expenditure of £6,401,155 in 1957–58, £3,098,690 was spent on public works, £652,350 on medical services, £332,970 on native affairs, £378,489 on education and £1,938,656 on other votes. Expenditure amounted to £5,585,841 in 1956–57.

For particulars of the finances of the combined Territory administration, *see* page 127.

TRUST TERRITORY OF NEW GUINEA.

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area, including the sea, within the lines drawn through its extreme outer points is more than one million square miles. As the coast of the Territory has not been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands, together with the small islands adjacent thereto, are as follows:—North-East New Guinea, also called the mainland, 70,200 sq. miles; Bismarck Archipelago—New Britain, 14,100 sq. miles, New Ireland, 3,340 sq. miles, Lavongai, 460 sq. miles, Admiralty Islands, 800 sq. miles, total Bismarck Archipelago, 18,700 sq. miles; Solomon Islands—Bougainville, 3,880 sq. miles, Buka, 220 sq. miles, total Solomon Islands, 4,100 sq. miles; grand total, 93,000 sq. miles.

Information regarding physiography and climate will be found in *Official Year Book* No. 22, page 613, and in the *Official Handbook of the Territory of New Guinea*.

§ 2. Government.

1. **The Military Occupation (1914–18 War).**—On 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government on 9th May, 1921.

2. **Mandate (1920).**—In 1919, it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms

-of peace, should be entrusted to the Government of the Commonwealth under Mandate from the League of Nations. The issuing of the Mandate was, however, delayed, and it was not until 17th December, 1920, that its terms were settled, and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given in Official Year Book No. 33 (*see p. 264*).

3. **1939-45 War.**—For the events following the outbreak of the Pacific War and the formation of the Papua-New Guinea Provisional Administration in 1945, *see* page 127 of this chapter and earlier issues of the Official Year Book.

4. **Trusteeship (1946).**—The Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13th December, 1946. The terms of the Agreement are shown in Official Year Book No. 39, pages 355-7.

5. **Administration.**—For particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration *see* Official Year Book No. 36 and earlier issues.

For administrative purposes, the Territory is divided into the following nine districts:—New Britain, comprising New Britain and adjacent islands; Morobe, Madang, Eastern Highlands, Western Highlands, and Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

§ 3. Population.

1. **Non-indigenous Population.**—At the Census of 30th June, 1954, the non-indigenous population of the Territory was 7,201 males, 4,241 females, 11,442 persons. The total non-indigenous population at the Censuses of 1921, 1933 and 1947 was, respectively, 3,173, 5,216 and 6,200 persons. At 30th June, 1958, the estimated non-indigenous population was 9,002 males, 6,071 females, 15,073 persons, of whom 11,110 were Europeans, 2,783 Asians and 1,180 other races.

The European population of the Territory increased from 64 in 1885 to 3,191 at the Census of 1933, and it reached its pre-war peak of 4,608 in 1939. At the 1954 Census, the European population numbered 8,020 (5,185 males and 2,835 females).

Malays seem to have been the first Asians brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885. About 1889, the New Guinea Company began to bring Chinese, Malays and Javanese in growing numbers from Singapore and Java to work on the plantations; in 1892, there were about 1,800 Asians on the mainland. By 1898, the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the 1933 Census, and at 30th June, 1941, numbered 2,228, mostly Chinese. At the Census of 30th June, 1954, non-Europeans numbered 2,404, of whom Chinese (2,192) constituted the major proportion, whilst half-castes with one of the parents a European numbered 1,018.

2. **Native Population.**—The enumerated and estimated native population of the Territory as at 30th June, 1958, numbered 1,326,195 persons, comprising enumerated, 1,223,095 (645,206 males and 577,889 females), and estimated, 103,100. The total population was distributed throughout the several districts as follows:—Eastern Highlands, 323,909 persons; Western Highlands, 242,749; Sepik, 235,884; Madang, 132,323; Morobe, 182,889; New Britain, 102,192; New Ireland, 37,733; Bougainville, 51,764; Manus, 16,752.

§ 4. The Natives.

1. **General.**—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See* Official Year Book No. 16, p. 670, and *Official Handbook of the Territory of New Guinea*, Pt. V.)

2. **Land Tenure.**—There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas, some rights remain in the landholding group and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. In some cases, local government councils are discussing changes in land inheritance systems, and the Administration is also giving attention to the problem.

3. **Research Work.**—Research work among the native peoples of New Guinea was initiated under the German Administration and this work has been continued since on a wider scale.

4. **Education.**—Education in the Territory is provided by the Administration and various Mission organizations. Schools for natives have also been established by Native Village Councils. The Education Ordinance 1952–1957 enables the Administrator to establish an education advisory board, district education committees and European and native schools and to grant financial aid for educational purposes. European teachers are recruited from Australia, and native teachers are trained in the Territory by the Administration and the Missions. During the year ended 30th June, 1958, 184 schools were maintained by the Administration for 11,333 children, of whom 863 were Europeans, 363 Asians, 68 of mixed race and 10,039 natives. The total number of pupils in the various grades of mission schools was 108,046, of whom there were 139 Europeans, 247 Asians and 176 of mixed race. To assist the educational work of the Missions, the Administration provides expert advice, educational equipment, and text-books. In addition, the sum of £118,608 was distributed among the Missions as grants-in-aid during the year ended 30th June, 1958.

5. **Health of Natives.**—The main diseases affecting the native people are malaria, yaws, respiratory diseases, dysentery, tropical ulcers, hookworm and filariasis. The Department of Public Health is engaged in combating these diseases with a staff of fully-trained medical officers, medical assistants and orderlies in native hospitals. Its staff also supervises hospitals on plantations. It has facilities for research in tropical medicine, and schemes for training natives as medical orderlies and nurses. There are 12 European hospitals (2 conducted by Missions) and 104 native hospitals (49 Mission). The Department also provides the Missions with much of their medical stores and supplies, and maintains five Hansenide colonies for the treatment of natives suffering from Hansen's Disease and two Tuberculosis hospitals. There are also two Mission colonies which treat Hansen's Disease. The Department also undertakes the general oversight of sanitary conditions in the Territory.

6. **Missions.**—A number of Mission societies operate in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost, the Franciscan Order and the Society of the Divine Word along the coast of north-east New Guinea from Sepik to the Dutch border and in the Central Highlands, and the Marists in Buka and Bougainville. These are Roman Catholic Missions. Protestant Missions include the Methodist Overseas Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America) which works in Morobe, Madang, the Eastern and Western Highlands, New Britain and Manus, the New Guinea Anglican Mission in New Britain, the Seventh Day Adventist Mission in Bougainville, New Britain and the Mainland of New Guinea, the East and West Indies Bible Mission and the Baptist Mission in the Central Highlands. The South Seas Evangelical Mission (Undenominational) and the Assemblies of God Mission are also working in the Sepik area. All these Missions include teaching with their missionary work.

§ 5. Land Tenure.

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua and although, under the Land Ordinance 1922–1951, grants of freehold estates may be made, as a matter of policy all grants are now restricted to leaseholds. In New Guinea, however, the amount of freehold land of earlier origin held by private non-indigenous owners

amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at 59,520,000 acres, of which at 30th June, 1959, two per cent. was alienated. The following was the distribution of alienated land according to tenure at 30th June, 1959:—held by private non-indigenous inhabitants—freehold, 518,485 acres, leasehold, 318,154 acres; held by Administration, 539,190 acres; native reserves, 26,936 acres; total, 1,402,765 acres.

Leases in force at 30th June, 1959, were as follows:—Agricultural, 779—216,568 acres; dairying, 6—1,300 acres; pastoral, 16—85,637 acres; residential and business, 2,231—1,595 acres; special, 260—8,207 acres; mission 673—2,413 acres; long period leases from German regime, 104—4,515 acres; total 4,069—320,235 acres.

Under German law there was a system of registration of titles in a "Ground Book", but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the Lands Registration Ordinance 1924–55. The land registers were lost during the 1939–45 War but provision for restoration of the lost titles is made in the New Guinea Land Titles Restoration Ordinance 1951–55. A start has been made on the recording of native land interests under the Native Land Registration Ordinance 1952.

§ 6. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, mining, fishing and forestry industries. A joint government-private enterprise copra crushing mill at Toboi, near Rabaul, is producing coconut oil at the rate of about 8,000–10,000 tons a year. At Bulolo, a company (Commonwealth-New Guinea Timbers Ltd.), in which the Commonwealth Government has a controlling interest, is producing high quality waterproof plywood and veneers in a factory whose capacity is over 40 million square feet, on a $\frac{3}{8}$ inch basis, per annum. Native subsistence agriculture, fishing, and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, coconuts, bananas and papaw. Non-indigenous enterprise produces most of the commodities exported. Natives, however, produce copra for export and, in recent years, have taken up the production of introduced crops such as peanuts, rice, cucurbits and maize for their own consumption and cocoa and coffee for export. The principal agricultural products of New Guinea for the export trade are copra and cocoa. While most of the timber milled during 1956–57 was absorbed by the local market, exports increased over 1955–56 figures (*see para. 2 below*). The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by natives. Gold is the principal mineral mined. Natives are taking an increasing interest in mining for alluvial gold on their own account and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and pastoral industries, which, for the sake of convenience covers the Territory of Papua and New Guinea as a whole, *see pages 128–130*. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea.

2. **Timber.**—Various species of timber are found in the Territory, but the only accessible pure stand is the valuable pine forests of the Bulolo Valley. The main use of this timber is for the production of plywood and veneer by Commonwealth-New Guinea Timbers Ltd., which is consuming a little over 10 million super. feet of logs per annum to produce the equivalent of approximately 30 million square feet of plywood on a $\frac{3}{8}$ inch basis (37 million in 1957–58). Exports of plywood in 1957–58 were 26 million square feet, valued at £1,023,000 while veneer exports of 826,000 square feet on a $\frac{3}{8}$ inch basis were valued at £6,600. During the year, one million super. feet of logs (some suitable for plywood manufacture) to the value of £25,000 and three million super. feet of sawn timber valued at £210,000, were also exported. The Territory forests also provided flitches, battery veneer and egg-case parts for export.

The Administration sawmill previously operated at Yalu has been moved to Lae. It and the Administration mill at Keravat in New Britain, provide a considerable amount of sawn timber for local consumption, and serve as a training centre for operatives in the sawmilling industry. The Administration also operates a training centre for forestry workers, nurseries and a herbarium.

The Forestry Ordinance 1936–1951 provides for the issue of permits and licences to cut timber. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation; the grant

of emergency timber permits for limited quantities to assist in providing timber for Territory requirements; the disposal by public tender of timber areas designated by forest officials of the Territory; and the development of the pine stand in the Bulolo Valley by Commonwealth-New Guinea Timbers Ltd. Timber growing on native lands cannot be acquired by private purchasers direct from the natives but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Re-afforestation of areas dedicated for forestry in perpetuity is carried out by the Administration.

At 30th June, 1958, 15 permits and six licences were current, the total area of forest involved being 168,355 acres and 17,239 acres respectively. Twenty-nine sawmills and also some benches on private property were operating.

3. **Fisheries.**—The wealth of the waters of the Territory has been little exploited, but as the result of surveys and the development of the Administration fisheries service, action is being taken to promote increased use of the resources. Fish are caught at many places along the coast to supply the small local demand of the natives and of Europeans. Trochus shell to the value of £59,044 and green snail shell to the value of £8,481 were exported during 1957–58.

4. **Mining.**—The production of gold and associated silver is the most important mining activity in New Guinea. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and in tributaries of the Sepik River. Rich gold deposits were first discovered in the Morobe District in 1926; the field is situated about 80 miles (40 by air) inland from Lae, the nearest coastal port. Communication is established with the coast by regular air service and by road transport. Silver is found, usually associated with the gold in these deposits. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron ore occurs as magnetite and haematite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland. The commercial production of minerals other than gold and silver has not been undertaken.

The granting of rights, leases and claims for mining purposes is provided for in the Mining Ordinance 1928–1957 and regulations thereunder.

The production of gold in New Guinea during the last three pre-war years averaged about 228,000 fine oz. a year, valued at £2,000,000. In 1940–41, it amounted to 263,113 fine oz., valued at £2,808,835. Although the market price of gold has been fixed at a much higher level than in 1938–39, mining costs have risen to a greater extent and consequently production since the war has been on a much smaller scale, averaging 91,000 fine oz., at a value of £1,200,000 a year over the five years ended 1951–52. Production in 1955–56 amounted to 71,519 fine oz., valued at £1,117,483 and in 1956–57 to 78,856 fine oz., valued at £1,232,128. The slight increase in production during 1956–57 has not been maintained, however, the 1958–59 production being valued at only £707,704.

The Petroleum Ordinance 1936 has been superseded by the Petroleum (Prospecting and Mining) Ordinance 1951–1958, which has facilitated the carrying out of geological surveys and prospecting activities generally. At present only one company has made an application for a permit to search for petroleum in the Aitape area.

§ 7. Trade, Transport and Communication.

1. **Customs Tariff.**—The present customs tariff provides high revenue rates on ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods and jewellery but allows entry of most necessities affecting living and building costs duty free or at a low rate of duty. There is a by-law provision under the Customs Tariff to enable duty-free admission to be granted for plant, machinery, and chemicals to be used mainly for industrial and developmental purposes and for goods imported by passengers. No preferential rates are specified in the schedule.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced in and imported direct from the Territory of New Guinea (*see* Chapter XIII.—Trade), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

2. Imports and Exports.—(i) *Total Values.* The table below summarizes and compares the values of imports and exports for the years 1953–54 to 1957–58.

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS.
(£.)

Particulars.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
<i>Imports</i>	8,586,024	9,577,088	10,280,029	10,918,981	11,452,012
<i>Exports—</i>					
Domestic Exports ..	9,534,072	9,589,317	9,220,446	9,548,624	8,815,592
Re-Exports	510,322	471,324	665,177	763,868	812,456
<i>Total Exports</i> ..	10,044,394	10,060,641	9,885,623	10,312,492	9,628,048

(ii) *Imports.* The following table summarizes the countries of origin of imports. During the past ten years by far the greatest proportion of the imports has been supplied by Australia.

TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS.
(£.)

Country of Origin.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Australia	5,745,001	5,888,143	6,668,947	7,327,966	7,051,240
Germany (Federal Republic)	(a)	(a)	211,753	181,370	245,260
Hong Kong	380,425	522,455	474,583	421,191	482,085
India	137,879	121,465	149,805	116,006	145,865
Indonesia	(a)	(a)	299,616	462,091	632,274
Japan	(a)	(a)	468,185	478,364	790,436
United Kingdom ..	526,766	701,524	743,718	701,746	766,091
United States of America ..	901,083	972,947	797,869	785,611	790,151
Other Countries	894,870	1,370,554	465,553	444,636	548,610
<i>Total Imports</i> ..	8,586,024	9,577,088	10,280,029	10,918,981	11,452,012

(a) Not available; included under "Other Countries".

(iii) *Exports.* (a) *Countries of Destination.* The countries of destination of New Guinea exports are shown below.

TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS.
(£.)

Country of Destination.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Australia	3,651,008	4,338,701	4,575,510	4,923,756	4,956,187
United Kingdom	5,302,264	5,079,801	4,727,759	4,556,808	3,686,900
Other Countries	1,091,122	642,139	582,354	831,928	984,961
<i>Total Exports</i> ..	10,044,394	10,060,641	9,885,623	10,312,492	9,628,048
<i>Domestic Exports</i> ..	9,534,072	9,589,317	9,220,446	9,548,624	8,815,592
<i>Re-exports</i>	510,322	471,324	665,177	763,868	812,456

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years.

TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS.

(£.)

Item.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Copra	5,883,960	5,144,352	4,795,987	4,706,142	3,673,687
Other Coconut Products	1,501,796	1,297,185	1,458,273	1,441,187	1,649,503
Cocoa Beans	245,950	512,204	352,105	454,463	814,633
Coffee Beans	58,367	72,575	91,698	179,510	222,794
Peanuts	28,809	27,628	23,336	48,701	103,388
Gold	1,409,480	1,339,473	1,064,279	1,225,447	851,506
Shell (Marine)	170,321	218,956	303,215	220,361	68,460
Timber	113,941	212,199	285,505	256,286	235,247
Plywood	66,112	644,929	749,179	919,478	1,023,365
Veneer	1,677	36,196	9,440	1,036	6,649
Other	53,659	83,620	87,429	96,013	166,360
Total Domestic Exports	9,534,072	9,589,317	9,220,446	9,548,624	8,815,592

3. *Shipping.*—Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between Australia and the East also call at Territory ports and there are some ships to the United Kingdom and North America. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the Shipping Ordinances 1951. and the Coastal Shipping, Ports and Harbours Regulations.

Main ports of call for overseas vessels are Lae, Madang and Wewak (mainland), Rabaul (New Britain), Kavieng (New Ireland), Lorengau (Manus), and Kieta (Bougainville). Ports proclaimed under the Coastal Shipping, Ports and Harbours Regulations for the service of local vessels are, in addition to the main ports above-mentioned, Salamaua, Aitape and Vanimo (mainland), Gasmata and Talasea (New Britain), Namatanai (New Ireland), and Buka Passage (Bougainville).

There are no inland waterways and the natural river system is not generally suitable for vessels except those of small tonnage.

In 1957-58, 118 British vessels and 67 vessels of other nationalities called at Territory ports and discharged 130,363 tons of cargo and loaded 148,485 tons. Corresponding figures for 1956-57 were 126, 47, 135,505 and 135,579 respectively.

4. *Other Forms of Transport and Communication.*—There are no railways, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mt. Hagen. The total mileage of roads in the Territory of New Guinea at 30th June, 1958; was 4,389, of which 1,412 were suitable for heavy and medium traffic.

Air services link the Territory with Papua, Australia, Netherlands New Guinea and the British Solomon Islands. There are 126 aerodromes and seaplane alighting areas in New Guinea, and of these 26 are controlled by the Department of Civil Aviation, 42 by the Administration, 57 by private interests and one by the Royal Australian Navy.

Telephone services operate in the main centres. Radio telephone trunk circuits link Port Moresby with Lae, Rabaul and Madang and service is available from subscribers telephones in Port Moresby, Lae and Rabaul, and from the Post Office at Madang. Six zone or group centres for radio telephone communication with outstations have been established at Lae, Madang, Rabaul, Kavieng, Wewak and Lorengau. From these centres radio telegraph services are also available to 111 outstations.

§ 8. Finance.

The principal sources of revenue for the Territory of New Guinea are the grant by the Commonwealth Government and customs duties. Total revenue in 1957-58 amounted to £9,114,847, towards which the grant contributed £6,188,821 and customs duties £1,894,125. The major classes of expenditure during 1957-58 were as follows:—Health, £1,225,650; district services and native affairs, £641,078; education, £637,238; civil affairs, £432,243; justice, £237,893; agriculture, etc., £389,552; posts and telegraphs, £361,444; customs and marine, £125,579; forestry, £239,908; public works, £362,116; maintenance, £855,944; capital works and services, £2,063,908. Total expenditure in 1957-58 was £9,114,847 as compared with £8,150,696 in 1956-57.

For information on the finances of the combined Territory administration *see* Papua and New Guinea, § 2, page 127.

TRUST TERRITORY OF NAURU.

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference, having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32' S. and longitude 166° 55' E. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that most of the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners, and the Missions, the whole of the island is owned by individual natives. The temperature range is from 76° F. at night to 94° F. during the day and the average humidity about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the annual average for twenty years from 1920 to 1940 being 80.5 inches. However, falls as high as 181.76 inches during 1940 and as low as 12.29 inches during 1950 have been recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate was confirmed by the Council of the League of Nations on 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator, who took up duty in June, 1921. The agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is shown in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

On 25th August, 1942, nine months after the outbreak of the war in the Pacific, the island was occupied by Japanese forces and communications with Nauru ceased. It was re-occupied by a joint Australian Naval and Military Force on 14th September, 1945, and civil administration was re-established on 1st November, 1945.

3. **Trusteeship Agreement.**—On 1st November, 1947, the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand, and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand, and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement were given in Official Year Book No. 39, pages 370-1.

4. **Administration.**—The administration of the island is vested in an Administrator, who is obliged to conform to instructions issued by the Government which appointed him. Until the Government of Australia ceases to exercise full powers of legislation, administration, and jurisdiction in and over the Territory on behalf of the Administering Authority in pursuance of Article 4 of the Trusteeship Agreement, all ordinances made by the Administrator are subject to confirmation or disallowance by the Governor-General

of Australia acting on the advice of the Federal Executive Council. All administration expenses are met from local revenue and phosphate royalties. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by Nauruans. The store books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

5. **Population.**—The Nauruan component of the population numbered about 1,100 in 1921, but had grown to more than 1,800 before the Japanese invasion in August, 1942. In 1946, it numbered less than 1,400 but by 30th June, 1957, had risen to 2,093. Chinese have, for many years, formed a considerable part of the population of Nauru; their numbers increased, with some reversals of trend, from about 600 in 1921 to more than 1,500 before the 1939–45 War. After the war, they increased from about 800 in 1946 to 1,491 in 1950, but at 30th June, 1957, numbered only 732. The number of other Pacific islanders in the early 1920's was almost 300 but they subsequently declined to less than 40. In recent years, the numbers have increased, and at 30th June, 1957, there were 1,105. The European population after 1921 fluctuated, but with a generally upward trend, between one and two hundred, and in 1940 numbered 192. In 1948, it numbered 247 and in 1957 it was 373. The total non-indigenous population of Nauru at 30th June, 1958, was 2,150, while the total population was 4,308.

6. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but elephantiasis is occasionally met with. An area has been set apart for the segregation of sufferers from Hansen's disease, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30th June, 1958, was 48, of whom, however, only nine were in segregation at the Hansenide colony. Three hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commissioners for European and one for non-European employees. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo medical examination at intervals of three months. Baby clinics have been established to give help and advice to Nauruan mothers in respect of infant nurture.

7. **Education.**—The Administration assumed full responsibility for education on 1st October, 1923. Prior to that date, the education of native children was undertaken by the Missions, which were subsidized by the Administration. There are three primary schools, one each for European, Nauruan and Gilbertese students, one Nauruan secondary school and one mission school providing primary and secondary classes. Primary education only is provided for European children, allowances being provided to those who proceed to secondary schools in Australia. At 30th June, 1958, 547 Nauruans, 94 other Pacific Islanders, 23 Chinese and 46 Europeans were enrolled in the primary schools, and 64 at the two secondary schools.

The curriculum is based generally on that used in Australian schools, and the teaching is generally in English. Education is compulsory for Nauruan children from six to sixteen years of age. At 30th June, 1958, 34 Nauruans were attending secondary schools in Australia or undertaking post-secondary training, 22 as scholarship holders and the balance sponsored by their families. In addition to these, there were three students at the Central Medical School, Suva, and one private student in New Zealand.

8. **Judiciary.**—The District Court is a court of record and consists of such magistrates as the Administrator appoints. Additionally, there is the Central Court which, as a superior court of record, consists of such judges or magistrates as are appointed and which, *inter alia*, may hear and determine appeals from judgments of the District Court. A Court of Appeal comprising a judge appointed by the Administrator has also been constituted with jurisdiction to hear and determine appeals from judgments of the Central Court.

9. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

10. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919, the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity remaining on Nauru has been estimated at about 70 million tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments on 25th June, 1920, for £3,500,000, the purchase money being contributed in the proportions of 42, 42 and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government, and the three countries are entitled to receive the output in the same proportions of 42, 42 and 16 per cent.

(ii) *Royalty on Phosphate.* Under an agreement between the British Phosphate Commissioners and the Nauruan landowners, royalty of 1s. 6d. for each ton of phosphate exported has been payable since 1st July, 1953. As from 1st July, 1957, however, this rate has been increased to 2s. 7d. a ton as follows:—

- (a) 7d. to the Nauru Royalty Trust Fund to be used for the benefit of Nauruans;
- (b) 1s. to the landowner, being an immediate payment of 9d. a ton, and 3d. a ton to be invested on his account;

(c) 1s. to the Nauruan Community Long Term Investment Fund.

From 1st July, 1957, the lump sums payable to landowners from whom phosphate-bearing lands are leased were also increased to £60 an acre.

(iii) *Nauru and Ocean Island Phosphate Industry.* Exports of phosphate from Nauru and Ocean Island in 1939–40 amounted to 1,243,428 tons, of which Australia received 54 per cent. and New Zealand 32 per cent. Following the interruption to production by the war in the Pacific, this figure was not exceeded until 1949–50 when 1,285,998 tons were exported (76 per cent. to Australia, 24 per cent. to New Zealand). Figures for 1957–58 were:—1,456,760 tons exported (including Ocean Island 289,580 tons), 60 per cent. to Australia, 32 per cent. to New Zealand and eight per cent. to the United Kingdom.

Receipts from the sale of phosphate in 1939–40 amounted to £1,041,418, and the f.o.b. cost, including interest on capital, sinking fund, etc., amounted to £1,037,208. In 1946–47, sales and costs each amounted to about £500,000, but they have since increased to more than £3,000,000. In 1957–58, receipts from sales, etc., amounted to £3,363,556, and costs, etc., to £3,358,894.

During the period of the Japanese occupation from August, 1942, to September, 1945, while waiting to resume activities at Nauru and Ocean Island, the Commissioners were engaged in meeting the phosphate requirements of Australia and New Zealand from other available sources. A programme of improvements and additions to equipment has been commenced.

The amount due by the British Phosphate Commissioners to the partner Governments for purchase-money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1942, this had been reduced to £3,024,373. The partner Governments agreed to a suspension of interest and sinking fund payments from 1st January, 1942, while operations at Nauru and Ocean Island were curtailed. Modified payments were resumed in 1946–47, pending a review of the position.

The review was carried out in 1950, and as a result the revised capital indebtedness of the Commissioners to the partner Governments at 30th June, 1950, was determined at £3,881,711. Interest and sinking fund payments were resumed with effect from 1st July, 1950, on the basis of repayment of the revised capital indebtedness in 35 years. At 30th June, 1958, this indebtedness had been reduced to £3,396,091.

(iv) *Employees.* Apart from a limited number of Europeans, the employees are Chinese and Pacific Islanders engaged under a one year contract. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

(v) *Christmas Island Phosphates.* The Australian Government is also interested in phosphate deposits on Christmas Island (*see* p. 148).

11. *Transport.*—There is no regular air service to Nauru, but when the need arises charter flights are made to the island.

There is relatively frequent sea communication with the island. During 1957–58, 145 vessels called there. Most of the vessels are run or chartered by the British Phosphate Commissioners for the carriage of phosphate. Many of them also provide for the carriage of passengers and other cargo as required.

12. *Trade.*—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider and perry. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt. The tariff rates apply to all countries alike. In 1957–58, imports were valued at £971,029 and exports, 1,167,180 tons of phosphate, at £2,421,898. Of the total imports in 1957–58, Australia supplied 70 per cent. valued at £684,668; the balance came mainly from the United Kingdom, New Zealand, Hong Kong and the United States in that order.

In 1957–58, 755,002 tons of phosphate were exported to Australia, 306,478 tons to New Zealand and 105,700 tons to the United Kingdom.

13. Revenue and Expenditure.—The revenue of the Administration has risen from £33,084 in 1939 to £352,656 in 1957–58, and expenditure from £29,391 to £357,396.

Of the revenue for the year ended 30th June, 1958, payments by the British Phosphate Commissioners amounted to £328,988, post office and radio receipts, £9,340, and customs duties, £3,462. Mains items of expenditure were salaries £121,145, miscellaneous services (health, education, etc.), £154,612 and capital works and services, £54,345.

TERRITORY OF HEARD ISLAND AND McDONALD ISLANDS.

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26th December, 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the Heard and McDonald Islands Act 1953.

In December, 1947, an Australian scientific station was established on Heard Island and meteorological investigations were conducted until the station was closed in March, 1955, following the establishment of Mawson station on the Antarctic mainland. Heard Island is about 27 miles long and 13 miles wide. The McDonald Islands are 26 miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY.

An Imperial Order in Council of 7th February, 1933, placed under Australian authority all the islands and territories other than Adelie Land which are situated south of 60° S. lat. and lying between 160° E. long. and 45° E. long. The Order came into force with a Proclamation issued by the Governor-General on 24th August, 1936, after the passage of the Australian Antarctic Territory Acceptance Act 1933. The boundaries of Adelie Land were definitively fixed by a French Decree of 1st April, 1938, as the islands and territories south of 60° S. lat. lying between 136° E. long. and 142° E. long. The Australian Antarctic Territory Act 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable, and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13th February, 1954, the Australian National Antarctic Research Expedition (A.N.A.R.E.) established a base on MacRobertson Land at latitude 67° 36' S. and longitude 62° 53' E. The base was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13th January, 1957, at latitude 68° 34' 36" S. and longitude 77° 58' 36" E. The station was named Davis in honour of Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. In February, 1959, the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on Vincennes Bay, at latitude 66° 15' S. and longitude 110° 33' E., on 16th January, 1957. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838–40 United States expedition to the area. Scientists from both countries participate in the programme of research at Wilkes. A.N.A.R.E. has also operated a station since the 1947–48 Antarctic season at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

TERRITORY OF COCOS (KEELING) ISLANDS.

1. General.—The Cocos (Keeling) Islands, two separate atolls comprising some 27 small coral islands with a total area of about five square miles, are situated in the Indian Ocean in latitude 12° 5' S. and longitude 96° 53' E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west, and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about 6 miles from north to south, on which is the aerodrome and most of the European community; Home Island, the head-quarters of the Clunies-Ross Estate; Direction Island, on which is situated the Cable and Wireless Station and the Department of Civil Aviation's Marine Base; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about 15 miles to the north of the group and has no inhabitants.

Main settlements are on West Island, Home Island and Direction Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and its average rainfall is 80 inches. There are occasional violent storms. The worst cyclone in their recorded history struck the islands in 1909, when about 400,000 coconut palms were uprooted or decapitated and the accompanying tidal wave left only five buildings standing.

2. History.—The islands were discovered in 1609 by Captain William Keeling of the East India Company. They were uninhabited and remained so until 1826 when the first settlement was established on the main atoll by an Englishman, Alexander Hare, who quitted the islands in about 1831. In the meantime, a second settlement was formed on the main atoll by John Clunies-Ross, a Scottish seaman and adventurer, who landed with several boat-loads of Malay seamen. In 1857, the islands were annexed to the Crown and formally declared part of the British Dominions, and in 1878 responsibility for their supervision was transferred from the Colonial Office to the Government of Ceylon, and subsequently, in 1882, to the Government of the Straits Settlements. By indenture in 1886, Queen Victoria granted the land comprised in the islands to John Clunies-Ross in perpetuity, and until 1946, the patriarchal rule of the head of the Clunies-Ross family was recognized. The head of the family had semi-official status as resident magistrate and representative of the Government. However, in 1946, when the islands became a dependency of the Colony of Singapore, a Resident Administrator, responsible to the Governor of Singapore, was appointed.

Other items of significance in the islands' history are:—1901—a small cable relay station was established at Direction Island; 1903—the islands were incorporated in the Settlement of Singapore; 1914—the German cruiser *Emden* raided Direction Island but was destroyed by H.M.A.S. *Sydney*; 1944—the Islands were under military administration with allied troops stationed there (a military Administrator was appointed during the minority of the Clunies-Ross heir who came of age in 1949); 1945—a R.A.F. air-strip was constructed on West Island; 1946—civil administration was re-established.

3. Transfer to the Commonwealth of Australia.—On 23rd November, 1955, the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the Cocos (Keeling) Islands Act 1955 of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth to be known as the Territory of Cocos (Keeling) Islands.

4. Administration.—Responsibility for the administration of the Territory rests with the Minister for Territories. The first Official Representative was appointed on 23rd November, 1955, to take charge of the local administration of the Territory. Under the Official Representation Ordinance 1955 of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the Cocos (Keeling) Islands Act 1955–1958 or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the Cocos (Keeling) Islands Act 1955–1958. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

5. Population.—The population of the Territory in June, 1958, was estimated to be 610, comprising 123 Europeans, 450 Cocos Islanders and 37 Asian indentured workers. The Cocos Islanders reside on Home Island.

6. Transport.—There is an International airport at West Island under the control of the Department of Civil Aviation. This is a re-fuelling point for aircraft on the fortnightly air-services between Australia–South Africa and Australia–United Kingdom operated by South African Airways and Qantas Empire Airways Ltd., respectively. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals.

TERRITORY OF CHRISTMAS ISLAND.

1. General.—Christmas Island is an isolated bank, situated in the Indian Ocean in latitude 10° 25' 19" S., longitude 105° 42' 57" E. It is approximately 220 miles south from Java Head, at the south entrance to Sunda Straits, 810 miles from Singapore and 1,625 miles from Fremantle. Christmas Island covers an area of about 55 square miles. It

consists of a central plateau at about 600 to 800 feet, with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the Island except in a few places, the chief of which is Flying Fish Cove where the shore is formed of coral shingles.

The principal settlement is at Flying Fish Cove which is also the only known anchorage. Vessels are moored close inshore opposite two piers with extension conveyors and direct loading to ships is carried out by these means. The main installations of the phosphate industry are located here together with the European married quarters and the Chinese and Malay settlements. There is a secondary settlement with maintenance shops, etc., at South Point, and several other small settlements or camps across the central plateau and at the small pumping plants at springs and wells.

The climate is healthy and pleasant, the prevailing winds being from the south-east to east-south-east from May to December but from then to April (the wet season) they occasionally shift round from north to north-east. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water but there are several good springs, which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

2. History and Administration.—The first mention of Christmas Island appears in a map published in Holland in 1666, in which it is called *Moni Island*, although it is believed that Captain William Mynors of the East India Company had sighted the island on Christmas Day in 1643 and had named it accordingly.

In June 1888, it was annexed by Captain H. W. May of H.M.S. *Imperieuse* as part of the British Dominions and placed under the supervision of the Straits Settlements Government for administrative purposes. Following upon this, a small settlement was established at Flying Fish Cove by Mr. G. Clunies-Ross of Cocos (Keeling) Islands. In February, 1891, Sir John Murray and Mr. Clunies-Ross were granted a 99 year lease of the Island. This lease was transferred to the Christmas Island Phosphate Co. Ltd. in 1897, following the discovery of large deposits of phosphate of lime on the Island. In 1900, Christmas Island was incorporated for administrative purposes with the Settlement of Singapore and the laws of Singapore were generally applied to the Island.

The Straits Settlements (Repeal) Act 1946, passed by the United Kingdom, repealed the Act establishing the whole of the Straits Settlements as a single colony. Subsequently the Singapore Colony Order in Council, in 1946, decreed that the Island of Singapore and its dependencies, the Cocos or Keeling Islands and Christmas Island should be governed and administered as a separate Colony and called the Colony of Singapore. From 1st January, 1958, pending transfer to Australia, Christmas Island was administered by the United Kingdom as a separate Crown Colony. The Island was transferred to the Commonwealth of Australia on 1st October, 1958, by the Christmas Island Act 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories and day to day affairs on the Island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the Island at the 30th September, 1958, were continued as the laws of the Territory after its transfer to Australia on the 1st October.

3. Industry and Commerce. The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission.

There are three principal phosphate deposits on the Island, the largest being that now being worked at South Point. This field is situated on the 600' to 800' level and is approximately 11 miles from the drying and shipping plant at Flying Fish Cove. The present output is about 400,000 tons annually. In addition, about 30,000 tons of phosphate dust is supplied annually to Malaya.

There is little prospect of any economic developments outside the phosphate industry.

4. Population.—The population of Christmas Island at 30th June, 1959, was approximately 2,908, consisting of 161 Europeans, 2,033 Chinese, 700 Malays and 14 Indians.

5. Communications.—Transport connection with the island is maintained by ships operated by the Phosphate Commission or ships under charter by the Commission. The "Islander", a ship of 1,600 tons, makes regular trips between Christmas Island and Singapore at intervals of about three weeks. Chartered vessels ply between Christmas Island and Fremantle and other Australian ports. Trips average about four vessels per month.

CHAPTER VI.

MANUFACTURING INDUSTRY.

§ 1. General.

1. Introduction.—A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906 and figures on this basis were prepared for 1907 and subsequent years.

Prior to the federation of the Australian States in 1901, the manufacturing industry in Australia was engaged primarily in the production of goods for local use, mainly food commodities, furniture, bricks, clothing made from imported materials, printing, the repair rather than the manufacture of machinery, and the preliminary treatment of primary products, such as wool-scouring and sawmilling.

After federation, steady expansion of the manufacturing industry resulted from the removal of interstate trade barriers and the operation of a uniform protective tariff. This expansion was quickened as a result of the demands created by the 1914–18 War, the curtailment of imports, and the rapid growth of spending power within the community. New and more advanced development took place, iron and steel works and many related and subsidiary industries were established, extensive manufacture of machinery was begun, and a wide range of high-grade products—textiles, metal manufactures, electrical goods, etc.—was added to the list of commodities made in Australia.

This expansion was checked by the world-wide economic depression of 1929–33, but in 1933 returning general prosperity and the opportunities opened to local manufacturers by import restrictions, together with depreciation of Australian currency, gave renewed stimulus to manufacturing enterprise. As economic conditions improved, the tariff, revenue duties, and primage were reduced, but without materially prejudicing the progress of local manufactures.

When war broke out in September, 1939, Australia became a major source of supply for British countries east of Suez and in meeting their demands, as well as those arising locally because of interruption of oversea imports, existing manufacturing industries expanded, and new enterprises were developed rapidly for the production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, scientific equipment, textiles, chemicals, etc. The outbreak of war with Japan, the basing of Allied armed forces in Australia, and Australian responsibilities for supplies in the South-west Pacific Area, gave added impetus to these developments, and manufacturing in Australia outstripped all previous levels.

The cessation of war production and the transition of industry to a peace-time basis temporarily retarded progress, but from 1945–46 onward there was renewed expansion of the manufacturing industries to which an inflow of capital from overseas contributed.

2. Decentralization of Manufacturing Industries.—Following upon a report by the Secondary Industries Commission, the Commonwealth Government called a conference of Commonwealth and State Ministers in August, 1945, to formulate a national policy for the decentralization of secondary industries. It was agreed that the State Governments should seek to promote decentralization along the lines appropriate to each, providing necessary services, assistance and concessions to the full extent of State resources. The Commonwealth undertook to collaborate in all matters of Commonwealth industrial policy

affecting the development and location of industry, to investigate, in association with the States, the prospects of developing secondary industries in selected areas, to advise the States of developments desirable for defence purposes, and to provide financial assistance for projects of national importance where the cost would be great relative to the State's resources.

The Commonwealth has assisted decentralization by allocating to private industry munitions and other defence buildings in decentralized areas and accommodating migrants in provincial centres with prospects of development. Oversea firms contemplating establishment in Australia are encouraged to select locations in rural areas or the less industrialized States.

3. Commonwealth Division of Industrial Development.—The functions of the Division of Industrial Development include the encouragement of industrial development, the exercising of Commonwealth responsibilities for the decentralization of industry, the promotion of industrial efficiency (especially the study of technical, production and managerial problems and the dissemination and application of new knowledge and methods), the encouragement of the development of technological institutes and the publication of studies of the structure and operation of Australian manufacturing industries. The Division was attached to the Ministry of National Development when formed in March, 1950, to plan the development of national resources and to promote decentralization and regional development in conjunction with the States, but was transferred to the Department of Trade in January, 1956.

4. Customs and Excise Tariffs and Bounties on Manufactures.—Particulars of Australian customs and excise tariffs, and the constitution and functions of the Australian Tariff Board in relation to matters affecting the industrial development of Australia, are given in Chapter XIII.—Trade.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards.

5. Scientific Research and Standardization.—(i) *The Commonwealth Scientific and Industrial Research Organization.* The function of this Organization, reference to which also appears in Chapter XXX., is to initiate and conduct research in connexion with industries in Australia, to train research workers, to establish industrial research student-ships and fellowships, to make grants in aid of pure scientific research, to establish industrial research associations in various industries, to provide for testing and standardization of scientific equipment, to conduct an information service relating to scientific and industrial matters, and to act for Australia in liaison with other countries in matters of scientific research.

(ii) *The Standards Association of Australia.* This Association, which is referred to also in Chapter XXX., acts as the national standardizing organization of Australia and issues standard specifications for materials and codes of practice. Specifications and codes are prepared and revised periodically in accordance with the needs of industry, and standards are evolved and accepted by general consent.

(iii) *The National Association of Testing Authorities.* The National Association of Testing Authorities organizes national testing facilities throughout Australia to serve private and governmental needs. Laboratories may register voluntarily in respect of tests within their competence and the Association ensures the maintenance of their standards of testing. It is expected that there will be general acceptance of certificates of tests issued in the name of the Association by the registered laboratories.

6. Definitions in Factory Statistics.—The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the Statistical Acts of the States and the Commonwealth. A return must be supplied in respect

of every factory, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries) but does not cover smallgoods makers, laundries, farriers, photography studios, florists and seedsmen, or most abattoirs. It should be noted that details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the horse-power of machinery, the value, and in most cases the quantities, of raw materials and fuel used, and quantities and values of principal materials and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

The *average number of persons* employed is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges).

In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw materials of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, and timber from the sawmills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

In the special case of Government factories and workshops, the value of output is, in most cases, estimated by adding 10 per cent. to the value of materials and fuel used and other factory costs, including salaries and wages paid.

7. Classification of Factories.—In the compilation of statistical data relating to factories in Australia, a standard classification of manufacturing industries, formulated at a conference of Australian statisticians in 1902 and revised from time to time, was used until the year 1929–30. A new classification was introduced in 1930–31, and this in turn was revised and extended (principally in respect of the placement and composition of sub-classes) in accordance with decisions of the Statisticians' Conference, 1945.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Particulars of certain of the sub-classes shown below are published in the latter portion of this chapter and full details for all sub-classes may be found in the Bulletin *Secondary Industries*, published annually.

The classes and sub-classes in the current classification of factories are as follows:—

CLASSIFICATION OF FACTORIES.

CLASS I.—TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS.

Coke Works.
Briquetting and Pulverized Coal.
Carbide.
Lime, Plaster of Paris, Asphalt.
Fibrous Plaster and Products.
Marble, Slate, etc.
Cement, Portland.
Asbestos Cement Sheets and Mouldings.
Other Cement Goods.
Other.

CLASS II.—BRICKS, POTTERY, GLASS, ETC.

Bricks and Tiles.
Earthenware, China, Porcelain and Terracotta.
Glass (*other than Bottles*).
Glass Bottles.
Other.

CLASS III.—CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE.

Industrial and Heavy Chemicals and Acids.
Pharmaceutical and Toilet Preparations.
Explosives (including Fireworks).
White Lead, Paints and Varnish.
Oils, Vegetable.
Oils, Mineral.
Oils, Animal.
Boiling-down, Tallow-refining.
Soap and Candles.
Chemical Fertilizers.
Inks, Polishes, etc.
Matches.
Other.

CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES.

Smelting, Converting, Refining, Rolling of
Iron and Steel.
Foundries (Ferrous).
Plant, Equipment and Machinery, etc.
Other Engineering.
Extracting and Refining of other Metals; Alloys.
Electrical Machinery, Cables and Apparatus.
Construction and Repair of Vehicles (10 groups).
Ship and Boat Building and Repairing, Marine
Engineering (Government and Other).
Cutlery and Small Hand Tools.
Agricultural Machines and Implements.
Non-Ferrous Metals—
Rolling and Extrusion.
Founding, Casting, etc.
Iron and Steel Sheets.
Sheet Metal Working, Pressing, and Stamping.
Pipes, Tubes and Fittings—Ferrous.
Wire and Wire Netting (including Nails).
Stoves, Ovens and Ranges.
Gas Fittings and Meters.
Lead Mills.
Sewing Machines.

CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES—*continued.*

Arms, Ammunition (excluding Explosives).
Wireless and Amplifying Apparatus.
Other Metal Works.

CLASS V.—PRECIOUS METALS, JEWELLERY, PLATE.

Jewellery.
Watches and Clocks (including Repairs).
Electroplating (Gold, Silver, Chromium, etc.).

CLASS VI.—TEXTILES AND TEXTILE GOODS (NOT DRESS).

Cotton Ginning.
Cotton Spinning and Weaving.
Wool—Carding, Spinning, Weaving.
Hosiery and Other Knitted Goods.
Silk, Natural.
Rayon, Nylon and Other Synthetic Fibres.
Flax Mills.
Rope and Cordage.
Canvas Goods, Tents, Tarpaulins, etc.
Bags and Sacks.
Textile Dyeing, Printing and Finishing
Other.

CLASS VII.—SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR).

Furriers and Fur-dressing.
Woolscouring and Fellmongery.
Tanning, Currying and Leather-dressing.
Saddlery, Harness and Whips.
Machine Belting (Leather or other).
Bags, Trunks, etc.

CLASS VIII.—CLOTHING (EXCEPT KNITTED).

Tailoring and Ready-made Clothing.
Waterproof and Oilskin Clothing.
Dressmaking, Hemstitching.
Millinery.
Shirts, Collars, Underclothing.
Foundation Garments.
Handkerchiefs, Ties and Scarves.
Hats and Caps.
Gloves.
Boots and Shoes (not Rubber).
Boot and Shoe Repairing.
Boot and Shoe Accessories.
Umbrellas and Walking Sticks.
Dyeworks and Cleaning, etc.
Other.

CLASS IX.—FOOD, DRINK AND TOBACCO.

Flour-milling.
Cereal Foods and Starch.
Animal and Bird Foods.
Chaffcutting and Corncrushing.
Bakeries (including Cakes and Pastry).
Biscuits.
Sugar-mills.
Sugar-refining.

CLASS IX.—FOOD, DRINK AND TOBACCO—
continued.

Confectionery (including Chocolate and Icing Sugar).
Jam, Fruit and Vegetable Canning.
Pickles, Sauces, Vinegar.
Bacon Curing.
Butter Factories.
Cheese Factories.
Condensed and Dried Milk Factories.
Margarine.
Meat and Fish Preserving.
Condiments, Coffee, Spices.
Ice and Refrigerating.
Salt.
Aerated Waters, Cordials, etc.
Breweries.
Distilleries.
Wine-making.
Cider and Perry.
Malting.
Bottling.
Tobacco, Cigars, Cigarettes, Snuff.
Dehydrated Fruit and Vegetables.
Ice Cream.
Sausage Casings.
Arrowroot.
Other.

CLASS X.—SAWMILLS, JOINERY, BOXES, ETC.,
WOOD TURNING AND CARVING.

Sawmills.
Plywood Mills (including Veneers).
Bark Mills.
Joinery.
Cooperage.
Boxes and Cases.
Woodturning, Woodcarving, etc.
Basketware and Wickerware (including Sea-grass and Bamboo Furniture).
Perambulators (including Pushers and Strollers).
Wall and Ceiling Boards (not Plaster or Cement).
Other.

CLASS XI.—FURNITURE OF WOOD, BEDDING, ETC.
Cabinet and Furniture Making (including Billiard Tables and Upholstery).
Bedding and Mattresses (not Wire).
Furnishing Drapery.

CLASS XII.—FURNITURE OF WOOD, BEDDING, ETC.—
continued.

Picture Frames.
Blinds.

CLASS XII.—PAPER, STATIONERY, PRINTING,
BOOKBINDING, ETC.

Newspapers and Periodicals.
Printing—
General, including Bookbinding.
Manufactured Stationery.
Stereotyping, Electrotyping.
Process and Photo Engraving.
Cardboard Boxes, Cartons and Containers.
Paper Bags.
Paper-making.
Pencils, Penholders, Chalks, Crayons.
Other.

CLASS XIII.—RUBBER.

Rubber Goods (including Tyres Made).
Tyre Retreading and Repairing.

CLASS XIV.—MUSICAL INSTRUMENTS.

Gramophones and Gramophone Records.
Pianos, Piano-Players, Organs.
Other.

CLASS XV.—MISCELLANEOUS PRODUCTS.

Linoleum, Leather-cloth, Oil-cloth, etc.
Bone, Horn, Ivory and Shell.
Plastic Moulding and Products.
Brooms and Brushes.
Optical Instruments and Appliances.
Surgical and Other Scientific Instruments and Appliances.
Photographic Material, (including Developing and Printing).
Toys, Games and Sports Requisites.
Artificial Flowers.
Other.

CLASS XVI.—HEAT, LIGHT, AND POWER.

Electric Light and Power.
Gas Works.

8. Factory Development since 1901—Australia.—The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table:—

FACTORIES: AUSTRALIA.

Year.	Fac-tories.	Employ-ment.(a)	Salaries and Wages Paid.(b)	Value of—				
				Materials and Fuel Used.	Output.	Pro-duction.(c)	Land and Build-ings.	Plant and Ma-chinery.
	No.	'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
	(d)		(d)	(d)	(d)	(d)	(d)	(d)
1901 ..	11,143	198	27,528	81,763	133,022	51,259	32,701	31,516
1911 ..	14,455	312	27,528	213,559	323,993	110,434	60,831	68,655
1920-21 ..	17,113	367	62,932	172,489	290,799	118,310	112,211	124,498
1930-31 ..	21,751	339	62,455	386,881	644,795	257,914	144,094	161,356
1940-41 ..	27,300	650	137,919	1,306,963	2,150,835	843,872	302,785	336,615
1950-51 ..	43,147	969	491,718	1,868,431	3,095,476	1,227,045	483,431	580,715
1953-54 ..	49,576	990	705,137	2,069,080	3,434,589	1,365,509	555,996	698,292
1954-55 ..	51,056	1,031	781,640	2,263,346	3,764,060	1,500,714	655,582	803,540
1955-56 ..	52,406	1,060	853,469	2,400,293	4,022,413	1,622,120	761,995	923,954
1956-57 ..	53,200	1,063	891,090	2,545,159	4,273,882	1,728,723	851,686	1,021,351
1957-58 ..	53,988	1,074	929,290					

(a) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value of output less value of materials and fuel, etc., used. (d) Not available.

§ 2. Number of Factories.

1. Number of Factories in each State.—The following table shows the number of factories operating in each State in the years 1938-39 and 1953-54 to 1957-58:—

FACTORIES: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39	9,464	9,250	3,087	2,067	2,129	944	26,941
1953-54	20,199	15,533	5,199	3,577	3,523	1,545	49,576
1954-55	20,837	15,861	5,284	3,750	3,727	1,597	51,056
1955-56	21,602	16,053	5,378	3,908	3,871	1,594	52,406
1956-57	21,838	16,232	5,537	4,063	3,935	1,595	53,200
1957-58	22,270	16,426	5,528	4,168	3,941	1,655	53,988

2. Number of Factories in Industrial Classes.—(i) *Australia.* The next table shows the number of factories in Australia during 1938-39 and 1953-54 to 1957-58 classified in the industrial classes agreed upon by the Conference of Statisticians in 1930. Details of some of the principal industries included in the table will be found in § 11, page 186.

FACTORIES: NUMBER IN INDUSTRIAL CLASSES: AUSTRALIA.

Class of Industry.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
I. Treatment of Non-metalliferous Mine and Quarry Products	564	1,280	1,303	1,337	1,331	1,328
II. Bricks, Pottery, Glass, etc.	471	639	662	666	672	660
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	666	1,099	1,124	1,139	1,162	1,184
IV. Industrial Metals, Machines, Conveyances	7,255	16,868	17,842	18,860	19,766	20,518
V. Precious Metals, Jewellery, Plate	290	720	746	782	824	808
VI. Textiles and Textile Goods (not Dress)	611	1,336	1,356	1,362	1,364	1,364
VII. Skins and Leather (not Clothing or Footwear)	533	783	810	789	785	761
VIII. Clothing (except Knitted)	4,314	7,260	7,370	7,390	7,312	7,266
IX. Food, Drink and Tobacco	5,202	7,379	7,433	7,468	7,315	7,455
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	2,822	5,769	5,845	5,895	5,872	5,764
XI. Furniture of Wood, Bedding, etc.	1,149	2,180	2,200	2,203	2,199	2,200
XII. Paper, Stationery, Printing, Book-binding, etc.	1,816	2,179	2,224	2,303	2,367	2,413
XIII. Rubber	299	465	495	513	536	565
XIV. Musical Instruments	34	75	79	84	88	88
XV. Miscellaneous Products	413	1,095	1,119	1,188	1,185	1,207
<i>Total, Classes I. to XV. ..</i>	<i>26,439</i>	<i>49,127</i>	<i>50,608</i>	<i>51,979</i>	<i>52,778</i>	<i>53,581</i>
XVI. Heat, Light and Power	502	449	448	427	422	407
Grand Total	26,941	49,576	51,056	52,406	53,200	53,988

Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. Except for the two war years 1941-42 and 1942-43, when there were decreases, the number of factories increased each year from 1931-32 to 1957-58. In the latter year, the number of factories in Australia reached the record total of 53,988 or more than twice the number in 1938-39.

(ii) *States, 1957-58.* The following table shows the number of factories in each State classified according to the nature of the industry:—

FACTORIES: NUMBER IN INDUSTRIAL CLASSES, 1957-58.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	448	442	101	166	117	54	1,328
II. Bricks, Pottery, Glass, etc. ..	311	159	57	64	48	21	660
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	589	350	78	85	60	22	1,184
IV. Industrial Metals, Machines, Conveyances ..	8,528	5,971	2,060	1,813	1,609	537	20,518
V. Precious Metals, Jewellery, Plate ..	368	266	40	57	71	6	808
VI. Textiles and Textile Goods (not Dress) ..	472	748	30	51	44	19	1,364
VII. Skins and Leather (not Clothing or Footwear) ..	339	289	55	39	31	8	761
VIII. Clothing (except Knitted) ..	3,363	2,516	521	375	407	84	7,266
IX. Food, Drink and Tobacco ..	2,798	2,022	1,035	699	609	292	7,455
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	2,257	1,407	831	353	456	460	5,764
XI. Furniture of Wood, Bedding, etc. ..	801	704	293	162	169	71	2,200
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,017	884	203	151	123	35	2,413
XIII. Rubber ..	219	151	81	55	40	19	565
XIV. Musical Instruments ..	35	28	7	10	8	..	88
XV. Miscellaneous Products ..	616	411	60	47	59	14	1,207
<i>Total Classes I. to XV. ..</i>	<i>22,161</i>	<i>16,348</i>	<i>5,452</i>	<i>4,127</i>	<i>3,851</i>	<i>1,642</i>	<i>53,581</i>
XVI. Heat, Light and Power ..	109	78	76	41	90	13	407
Grand Total	22,270	16,426	5,528	4,168	3,941	1,655	53,988

§ 3. Classification of Factories according to Number of Persons Employed.

1. *General.*—The size classification of factories is based on the average weekly number of persons employed during the period of operation (including working proprietors).

2. *States, 1957-58.*—The following table shows, for each State, the number of factories classified according to the average number of persons employed:—

FACTORIES: CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1957-58.

Size of Factory (Persons employed).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
NUMBER OF FACTORIES.							
Under 4	8,987	6,077	1,869	1,460	1,980	739	21,112
4	1,903	1,254	546	383	152	160	4,398
5 to 10	5,331	3,862	1,564	1,077	924	385	13,143
11 to 20	2,759	2,268	693	597	429	170	6,916
21 to 50	1,946	1,721	515	370	291	124	4,967
51 to 100	690	621	159	151	97	45	1,763
101 to 200	353	345	92	71	43	14	918
201 to 300	100	114	55	24	17	4	314
301 to 400	60	43	8	10	..	5	126
401 to 500	36	32	12	6	3	1	90
501 to 750	44	60	9	7	3	3	126
751 to 1,000	24	11	3	..	1	1	40
Over 1,000	37	18	3	12	1	4	75
Total	22,270	16,426	5,528	4,168	3,941	1,655	53,988

The relative importance of large and small factories is illustrated by the following classification of the average number of persons employed according to the size of factory in which they work:—

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED ACCORDING TO SIZE OF FACTORY, 1957-58.

Size of Factory (Persons employed).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED.							
Under 4	16,897	11,748	3,921	3,072	3,884	1,430	40,952
4	7,612	5,016	2,184	1,532	608	640	17,592
5 to 10	36,932	27,252	10,842	7,456	5,970	2,690	91,142
11 to 20	40,357	33,341	10,102	8,720	6,072	2,470	101,062
21 to 50	61,075	54,254	16,079	11,826	9,093	3,902	156,229
51 to 100	48,216	43,358	11,475	10,425	6,704	3,343	123,521
101 to 200	49,783	47,790	12,692	9,870	5,905	1,982	128,022
201 to 300	24,808	27,515	13,272	5,645	4,091	1,045	76,376
301 to 400	20,222	14,927	2,614	3,391	..	1,663	42,817
401 to 500	16,043	13,958	5,392	2,603	1,334	448	39,778
501 to 750	27,748	35,964	5,658	4,330	1,657	1,886	77,243
751 to 1,000	21,295	9,448	2,864	..	786	775	35,168
Over 1,000	78,221	34,319	5,618	23,974	2,980	6,261	151,373
Total	449,209	358,890	102,713	92,844	49,084	28,535	1,081,275
Average per Factory ..	20.17	21.85	18.58	22.28	12.45	17.24	20.03

3. Australia, 1938-39 and 1953-54 to 1957-58.—In the following table, factories in Australia are classified in broad groups for a series of years according to the number of persons employed:—

FACTORIES: CLASSIFICATION ACCORDING TO NUMBER OF PERSONS EMPLOYED, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 and under.		21 to 100.		101 and upwards.		Total.	
	Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.
1938-39—								
Number	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average per establish- ment .. ..	..	5.89	..	42.60	..	287.55	..	21.25
1953-54—								
Number	41,631	236,727	6,403	265,830	1,542	494,564	49,576	997,121
Average per establish- ment .. ..	..	5.69	..	41.52	..	320.73	..	20.11
1954-55—								
Number	42,835	241,233	6,603	273,257	1,618	524,307	51,056	1,038,797
Average per establish- ment .. ..	..	5.63	..	41.38	..	324.00	..	20.35
1955-56—								
Number	44,012	246,087	6,736	279,991	1,658	542,428	52,406	1,068,506
Average per establish- ment .. ..	..	5.59	..	41.57	..	327.16	..	20.39
1956-57—								
Number	44,790	249,069	6,730	279,974	1,680	541,872	53,200	1,070,915
Average per establish- ment .. ..	..	5.56	..	41.60	..	322.54	..	20.13
1957-58—								
Number	45,569	250,748	6,730	279,750	1,689	550,777	53,988	1,081,275
Average per establish- ment .. ..	..	5.50	..	41.57	..	326.10	..	20.03

§ 4. Power Equipment in Factories.

1. General.—Since 1936-37, statistics of power equipment in factories relate to the "rated horse-power" of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations are collected in greater detail. To avoid duplication, it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables, Central Electric Stations have been treated separately from other factories.

In 1957-58, 395 factories were recorded as using no power other than manual, the distribution of these factories among the various industries being as follows:—Fibrous Plaster and Products, 24; Galvanized Ironworking, Tinsmithing, 14; Tailoring and Ready-made Clothing, 93; Dressmaking, 10; Millinery, 4; Bakeries, 27; Cabinet and Furniture Making, 11; all other industries, 212.

2. Rated Horse-power of Engines in Factories other than Central Electric Stations.—The following table shows the number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1957-58:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS, 1957-58.

State.	Factories.(a)	Rated Horse-power of Engines and Motors.	
		Ordinarily In Use.(b)	In Reserve or Idle (omitting obsolete).
New South Wales	22,198	2,024,244	373,706
Victoria	16,375	1,325,387	190,166
Queensland	5,468	514,891	76,026
South Australia	4,130	370,097	47,146
Western Australia	3,854	242,719	34,159
Tasmania	1,644	250,042	36,268
Australia	53,669	4,727,380	757,471

(a) Includes Gas Works but excludes Central Electric Stations. (b) Excludes motors driven by electricity generated in factories not classified as Central Electric Stations.

3. Rated Horse-power of Engines and Electric Motors Ordinarily in Use.—(i) *According to Type, States.* Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1957-1958.

State.	Steam.		Internal Combustion.			Water.	Motors driven by Electricity.		Total. (b)
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
N.S.W. ..	80,553	122,008	871	41,301	19,405	150	1,759,956	85,553	2,024,244
Victoria ..	21,749	60,317	3,508	30,453	12,721	1,418	1,195,221	67,246	1,325,387
Queensland ..	82,690	63,558	2,644	15,781	13,411	..	336,807	92,862	514,891
S. Australia ..	7,015	9,750	1,161	7,819	8,881	10	335,461	23,338	370,097
W. Australia ..	11,318	11,002	1,302	13,362	9,707	..	196,028	4,931	242,719
Tasmania ..	1,529	24	1	9,390	373	192	238,533	357	250,042
Australia ..	204,854	266,659	9,487	118,106	64,498	1,770	4,062,006	274,287	4,727,380

(a) Includes Gas Works but excludes Central Electric Stations. (b) Excludes particulars in column (c).

(ii) *According to Type, Australia.* In the following table, details of the total rated horse-power of the various types of engines in use are given for Australia for the years 1938–39, and 1953–54 to 1957–58:—

FACTORIES(a): TYPES AND TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, AUSTRALIA.

Year.	Steam.		Internal Combustion.			Water.	Motors driven by Electricity.		Total. (b)
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
1938–39 ..	268,409	84,149	32,916	17,971	55,799	1,616	1,017,912	179,890	1,478,772
1953–54 ..	237,533	170,914	8,457	109,919	109,293	1,771	3,135,395	255,917	3,773,282
1954–55 ..	225,192	202,162	7,407	103,954	93,465	1,695	3,398,135	226,625	4,032,010
1955–56 ..	223,147	254,497	8,746	112,944	90,314	1,641	3,674,373	243,800	4,365,662
1956–57 ..	214,875	262,559	7,973	120,533	74,060	1,431	3,860,595	260,708	4,542,026
1957–58 ..	204,854	266,659	9,487	118,106	64,498	1,770	4,062,006	274,287	4,727,380

(a) Includes Gas Works but excludes Central Electric Stations.

(b) Excludes particulars in column (c).

(iii) *In Classes of Industry, 1957–58.* The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(b), 1957–58.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metallic ferous Mine and Quarry Products ..	83,220	44,451	18,820	20,536	16,623	14,941	198,591
II. Bricks, Pottery, Glass, etc. ..	51,585	38,855	8,639	9,584	11,077	2,211	121,951
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	150,105	135,921	10,989	21,577	38,791	11,886	369,269
IV. Industrial Metals, Machines, Conveyances ..	1,056,532	414,656	91,086	170,343	67,817	61,536	1,861,970
V. Precious Metals, Jewellery, Plate ..	5,456	5,046	1,241	1,011	627	64	13,445
VII. Textiles and Textile Goods (not Dress) ..	53,178	102,841	7,256	8,000	2,822	8,281	182,378
VIII. Clothing (except Knitted) ..	19,193	20,361	5,517	6,141	3,052	516	54,780
IX. Food, Drink and Tobacco ..	23,698	29,265	4,480	3,471	2,500	976	64,390
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	211,497	215,984	223,164	58,114	38,604	19,619	766,982
XI. Furniture of Wood, Bedding, etc. ..	178,463	118,720	100,908	37,522	48,116	41,109	524,838
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	17,920	16,886	8,744	6,526	4,072	1,469	55,617
XIII. Rubber ..	69,856	81,134	21,453	14,030	5,710	86,472	278,655
XIV. Musical Instruments ..	57,651	58,143	9,401	4,200	876	417	130,688
XV. Miscellaneous Products ..	1,660	440	46	14	9	..	2,169
	25,837	26,844	665	2,160	819	419	56,744
Total, Classes I. to XV. ..	2,005,851	1,309,547	512,409	363,229	241,515	249,916	4,682,467
XVI. Gas Works ..	18,393	15,840	2,482	6,868	1,204	126	44,913
Grand Total ..	2,024,244	1,325,387	514,891	370,097	242,719	250,042	4,727,380

(a) Excludes Central Electric Stations.

(b) Excludes motors driven by electricity generated in factories not classified as Central Electric Stations.

4. **Capacity of Engines and Generators installed in Central Electric Stations.**—(i) *According to Type, Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1957–58 are given in the following table:—

CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, AUSTRALIA, 1957-58.

Particulars.	Capacity of Engines and Generators.						
	Steam.		Internal Combustion.			Water.	Total.
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		
Engines installed .. Rated H.P.	6,016	5,057,307	12,348	15,977	331,047	1,304,728	6,727,423
Generators installed—							
Kilowatt capacity—							
Total installed .. kW	4,484	3,700,047	8,064	10,252	225,099	933,045	4,880,991
Effective capacity .. „	4,224	3,419,029	6,602	9,713	208,106	867,942	4,515,616
Horse-power equivalent—							
Total installed .. H.P.	6,011	4,959,839	10,810	13,742	301,741	1,250,728	6,542,871
Effective capacity .. „	5,662	4,583,140	8,850	13,020	278,962	1,163,459	6,053,093

NOTE.—The number of establishments classified as Central Electric Stations in 1957–58 was 319

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State in 1957–58 are given in the next table:—

CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Central Electric Stations No.	72	51	60	38	87	11	319
Engines installed .. Rated H.P.	2,688,724	1,565,409	814,981	546,613	410,906	700,790	6,727,423
Generators installed—							
Kilowatt capacity—							
Total installed .. kW	1,928,112	1,160,196	596,461	400,098	299,384	496,740	4,880,991
Effective capacity .. „	1,786,252	1,087,053	469,043	394,418	287,290	491,560	4,515,616
Horse-power equivalent—							
Total installed .. H.P.	2,584,596	1,555,220	799,544	536,323	401,318	665,870	6,542,871
Effective capacity .. „	2,394,435	1,457,173	628,742	528,709	385,107	658,927	6,053,093

§ 5. Employment in Factories.

1. **Number Employed.**—(i) *General.* All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and “out-workers” (see para. 4 (ii), p. 163), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods and retailing storemen, are excluded. Prior to 1945–46, the occupational grouping collected was (i) working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) enginedrivers and firemen; (v) workers in factory, skilled and unskilled; (vi) carters and messengers; and (vii) persons working regularly at home for the establishment. This grouping did not record separate details for technical staff (e.g., chemists, draftsmen, etc.) and supervisory staff and in 1945–46 the set-up on the collection form was amended to obtain the following groupings:—(i) Working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draftsmen and other laboratory and research staff; (iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers and persons working regularly at home.

Prior to the year 1928–29, average employment in factories was computed by dividing the sum of the number employed each week by the number of weeks worked. The figures therefore represented the average number employed over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928–29, the figures represent the equivalent average number employed over a full year of fifty-two weeks. The classification of factories according to the number of persons employed (*see* § 3, p. 155), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

(ii) *Australia.* Particulars of the numbers employed, the increase in employment and the rate per cent. of such increase are given for the years 1938–39 and 1953–54 to 1957–58 in the following table:—

FACTORIES: EMPLOYMENT, AUSTRALIA.

Year.	Males.			Females.			Persons.		
	Number Em- ployed.	Increase on Preceding Year.		Number Em- ployed.	Increase on Preceding Year.		Number Em- ployed.	Increase on Preceding Year.	
		Number.	Per Cent.		Number.	Per Cent.		Number.	Per Cent.
1938–39 ..	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1953–54 ..	758,508	35,104	4.85	231,034	21,177	10.09	989,542	56,281	6.03
1954–55 ..	788,691	30,183	3.98	242,391	11,357	4.92	1,031,082	41,540	4.20
1955–56 ..	811,847	23,156	2.94	248,651	6,260	2.58	1,060,498	29,416	2.85
1956–57 ..	813,551	1,704	0.21	249,847	1,196	0.48	1,063,398	2,900	0.27
1957–58 ..	822,515	8,964	1.10	251,292	1,445	0.58	1,073,807	10,409	0.98

(iii) *States.* The following table shows, for the same years, (a) the average number of persons employed in manufacturing industries in each State; (b) for each State, the percentage of the total number employed in factories in Australia; and (c) the number so employed per ten thousand of mean population in each State and Australia:—

FACTORIES: EMPLOYMENT.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS).

1938–39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106
1953–54 ..	402,595	331,277	98,119	85,503	47,459	24,589	989,542
1954–55 ..	419,810	346,648	100,293	89,565	49,314	25,452	1,031,082
1955–56 ..	433,081	355,185	102,473	92,589	50,108	27,062	1,060,498
1956–57 ..	436,369	355,204	103,426	91,981	48,748	27,670	1,063,398
1957–58 ..	445,802	357,143	101,844	92,472	48,462	28,084	1,073,807

PERCENTAGE OF AUSTRALIAN TOTAL.

1938–39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100
1953–54 ..	40.68	33.48	9.92	8.64	4.80	2.48	100
1954–55 ..	40.71	33.62	9.73	8.69	4.78	2.47	100
1955–56 ..	40.84	33.49	9.66	8.73	4.73	2.55	100
1956–57 ..	41.04	33.40	9.73	8.65	4.58	2.60	100
1957–58 ..	41.51	33.26	9.48	8.61	4.52	2.62	100

FACTORIES: EMPLOYMENT—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
PER 10,000 OF POPULATION.							
1938-39 ..	836	1,078	537	729	497	581	815
1953-54 ..	1,182	1,367	754	1,088	753	795	1,112
1954-55 ..	1,213	1,393	757	1,109	746	813	1,134
1955-56 ..	1,229	1,385	758	1,110	750	848	1,138
1956-57 ..	1,216	1,345	749	1,068	712	848	1,115
1957-58 ..	1,219	1,319	726	1,044	694	841	1,108

2. *Rates of Increase, 1938-39 and 1953-54 to 1957-58.*—The percentage increase on the average number of persons employed in the preceding year is shown below for each State:—

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	1.74	0.02	3.82	-1.62	0.34	4.80	1.06
1953-54 ..	5.89	6.60	5.36	6.24	5.03	4.66	6.03
1954-55 ..	4.28	4.64	2.22	4.75	3.91	3.51	4.20
1955-56 ..	3.16	2.46	2.17	3.38	1.61	6.33	2.85
1956-57 ..	0.75	0.00	0.93	-0.66	-2.71	2.25	0.27
1957-58 ..	2.18	0.55	-1.53	0.53	-0.59	1.50	0.98

NOTE.—Minus sign (—) indicates decrease.

3. *Persons Employed in Classes of Industry.*—(i) *Australia.* The following table shows the average number of persons employed in factories in each industrial class in Australia for the years 1938-39 and 1953-54 to 1957-58:—

FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
I. Treatment of Non-metalliferous Mine and Quarry Products	10,343	18,748	20,560	20,893	20,318	20,883
II. Bricks, Pottery, Glass, etc.	15,709	21,708	22,549	22,914	22,162	22,448
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	19,816	37,988	41,324	44,718	45,753	46,986
IV. Industrial Metals, Machines, Conveyances	177,677	397,713	422,124	444,274	447,405	459,345
V. Precious Metals, Jewellery, Plate	3,726	5,970	6,029	5,894	6,053	5,905
VI. Textiles and Textile Goods (not Dress)	46,082	69,482	69,046	68,356	70,176	68,875
VII. Skins and Leather (not Clothing or Footwear)	10,767	14,676	14,502	13,810	13,454	13,171
VIII. Clothing (except Knitted)	86,092	112,520	112,802	110,820	109,266	106,947
IX. Food, Drink and Tobacco	83,846	123,073	125,934	126,493	124,723	123,471
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	30,739	58,932	61,153	61,914	60,008	59,238
XI. Furniture of Wood, Bedding, etc.	15,287	20,975	21,342	21,508	21,258	22,099
XII. Paper, Stationery, Printing, Book-binding, etc.	39,913	56,119	59,777	62,713	64,719	66,285
XIII. Rubber	7,502	14,962	16,325	17,287	17,844	18,105
XIV. Musical Instruments	451	1,575	1,623	1,739	1,902	1,101
XV. Miscellaneous Products	7,727	19,565	19,962	20,967	21,746	22,332
<i>Total, Classes I. to XV.</i>	<i>555,677</i>	<i>974,006</i>	<i>1,015,052</i>	<i>1,044,300</i>	<i>1,046,787</i>	<i>1,057,191</i>
XVI. Heat, Light and Power	9,429	15,536	16,030	16,198	16,611	16,616
Grand Total	565,106	989,542	1,031,082	1,060,498	1,063,398	1,073,807

(ii) *States.* Particulars of the numbers employed in each industrial class are shown in the following table for each State:—

FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, 1957-58.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-ferrous Metal and Quarry Products ..	8,294	6,341	1,975	1,974	1,519	780	20,883
II. Bricks, Pottery, Glass, etc. ..	11,623	5,660	1,270	2,086	1,457	352	22,448
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	21,444	16,996	1,780	3,230	2,747	789	46,986
IV. Industrial Metals, Machines, Conveyances ..	209,583	134,221	36,284	50,235	19,549	9,473	459,345
V. Precious Metals, Jewellery, Plate ..	2,452	2,469	309	428	232	15	5,905
VI. Textiles and Textile Goods (not Dress) ..	22,178	38,078	2,159	2,590	949	2,921	68,875
VII. Skins and Leather (not Clothing or Footwear) ..	5,278	4,649	1,259	1,292	626	67	13,171
VIII. Clothing (except Knitted) ..	43,731	45,764	8,091	5,094	3,380	887	106,947
IX. Food, Drink and Tobacco ..	38,741	37,310	25,358	11,050	6,436	4,576	123,471
X. Sawmills, Joinery, Boxes, etc. Wood Turning and Carving ..	19,850	14,815	10,510	4,900	5,755	3,408	59,238
XI. Furniture of Wood, Bedding, etc. ..	8,913	6,550	2,869	2,013	1,301	453	22,099
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	28,158	22,113	5,717	4,015	2,537	3,745	66,285
XIII. Rubber ..	7,956	6,932	1,636	1,146	270	165	18,105
XIV. Musical Instruments ..	688	269	61	45	38	.	1,101
XV. Miscellaneous Products ..	9,962	10,357	602	797	412	202	22,332
<i>Total Classes I. to XV.</i> ..	<i>438,851</i>	<i>352,524</i>	<i>99,880</i>	<i>90,895</i>	<i>47,208</i>	<i>27,833</i>	<i>1,057,191</i>
XVI. Heat, Light and Power ..	6,951	4,619	1,964	1,577	1,254	251	16,616
Grand Total	445,802	357,143	101,844	92,472	48,462	28,084	1,073,807

4. **Persons Employed According to Occupational Grouping.**—(i) *General.* In the following table, the average number of persons employed in each State during 1957-58 is classified according to occupational grouping. As mentioned previously, persons employed in factories are now classified on a basis different from that adopted prior to 1945-46. The nature of this change is indicated in para. 1 of this section (*see p. 159*).

FACTORIES: PERSONS EMPLOYED—OCCUPATIONAL GROUPING, 1957-58.

State.	Average Number of Persons Employed.						Total.
	Working Proprietors.	Managerial and Clerical Staff, etc.(a)	Chemists, Draftsmen, etc.	Foremen and Overseers.	Workers in Factory (Skilled and Unskilled).	Carters (excluding Delivery only) and Messengers, etc. (b)	
New South Wales ..	16,202	53,896	6,955	19,521	347,182	2,046	445,802
Victoria ..	13,934	40,951	5,751	16,262	278,110	2,135	357,143
Queensland ..	4,946	10,169	1,073	4,080	80,831	745	101,844
South Australia ..	2,941	11,028	1,672	4,446	72,037	348	92,472
Western Australia ..	2,714	4,220	473	2,121	38,835	99	48,462
Tasmania ..	1,052	2,895	584	1,334	22,102	117	28,084
<i>Total Males</i> ..	<i>36,373</i>	<i>75,871</i>	<i>15,036</i>	<i>44,252</i>	<i>646,256</i>	<i>4,727</i>	<i>822,515</i>
<i>Total Females</i> ..	<i>5,416</i>	<i>47,288</i>	<i>1,472</i>	<i>3,512</i>	<i>192,841</i>	<i>763</i>	<i>251,292</i>
Total Persons	41,789	123,159	16,508	47,764	839,097	5,490	1,073,807

(a) Includes salaried managers and working directors at home.

(b) Includes persons working regularly

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and embraces only persons to whom work is given out by factories to be done at home. Owing to the amended employment groupings adopted in 1945-46, persons working regularly at home for factories are now included with carters, messengers and others and separate details are no longer available.

5. *Monthly Employment, 1938-39 and 1953-54 to 1957-58.*—(i) *Australia.* The following table shows the number of persons (excluding working proprietors) employed in factories on the pay-day nearest to the 15th of each month for the year 1938-39 and on the last pay-day of the month in the later years:—

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

Month.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
MALES.						
July	387,693	704,109	739,450	768,382	775,580	781,156
August	389,979	707,438	741,435	770,312	774,506	780,630
September	391,576	710,246	743,638	771,715	774,119	782,988
October	393,977	715,338	746,139	774,071	774,455	785,289
November	395,192	719,230	750,285	777,304	777,127	785,825
December	394,438	716,202	747,230	772,509	772,479	781,054
January	385,742	722,277	750,823	774,077	773,419	786,520
February	392,056	727,754	755,456	778,552	779,646	790,835
March	395,146	732,000	757,956	779,527	780,973	793,327
April	391,005	731,923	760,139	780,418	777,262	791,617
May	393,609	734,340	761,555	780,252	779,757	791,403
June	390,963	738,002	763,488	777,968	780,156	791,098
FEMALES.						
July	147,282	212,322	231,222	238,883	240,918	242,399
August	149,294	214,644	232,603	240,857	241,429	243,489
September	151,159	218,078	234,818	243,289	243,199	245,019
October	152,473	222,255	236,930	244,840	245,130	246,360
November	152,806	224,672	238,146	244,582	245,006	247,805
December	151,165	224,100	236,804	242,366	242,175	244,653
January	141,853	228,838	236,664	240,574	243,191	245,340
February	151,883	232,678	242,008	247,841	248,336	250,891
March	154,854	236,354	242,573	247,209	250,728	252,918
April	152,614	234,175	239,460	244,588	245,873	247,439
May	150,693	232,333	238,450	243,989	244,054	245,855
June	148,601	232,009	238,529	242,548	242,966	244,052
PERSONS.						
July	534,975	916,431	970,672	1,007,265	1,016,498	1,023,555
August	539,273	922,082	974,038	1,011,169	1,015,935	1,024,119
September	542,735	928,324	978,456	1,015,004	1,017,318	1,028,007
October	546,450	937,593	983,069	1,018,911	1,019,585	1,031,649
November	547,998	943,902	988,431	1,021,886	1,022,133	1,033,630
December	545,603	940,302	984,034	1,014,875	1,014,654	1,025,707
January	527,595	951,115	987,487	1,014,651	1,016,610	1,031,860
February	543,939	960,432	997,464	1,026,393	1,027,982	1,041,726
March	550,000	968,354	1,000,529	1,026,736	1,031,701	1,046,245
April	543,619	966,098	999,599	1,025,006	1,023,135	1,039,056
May	544,302	966,673	1,000,005	1,024,241	1,023,811	1,037,258
June	539,564	970,011	1,002,017	1,020,516	1,023,122	1,035,150

(ii) *States.* Particulars of the numbers employed in each State on the last pay-day of each month in 1957-58 are shown in the following table:—

FACTORIES: MONTHLY EMPLOYMENT, 1957-58.

(EXCLUDING WORKING PROPRIETORS.)

Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
July	318,674	245,685	83,459	72,731	39,156	21,451	781,156
August	318,989	244,951	83,215	72,841	39,160	21,474	780,630
September	320,128	246,093	82,561	73,015	39,602	21,589	782,988
October	321,472	247,017	82,122	73,383	39,702	21,593	785,289
November	323,329	247,928	79,865	73,290	39,730	21,683	785,825
December	322,365	247,903	75,715	73,121	39,550	22,400	781,054
January	323,544	249,998	76,962	73,780	39,506	22,730	786,520
February	325,441	251,277	78,149	73,716	39,792	22,460	790,835
March	326,235	251,815	79,306	73,830	39,924	22,217	793,327
April	326,523	250,065	79,691	73,453	39,642	22,243	791,617
May	326,605	249,153	81,276	72,982	39,280	22,107	791,403
June	326,008	248,065	83,031	73,026	39,054	21,914	791,098
FEMALES.							
July	104,315	94,753	16,470	15,695	6,173	4,993	242,399
August	104,937	95,155	16,680	15,847	6,184	4,686	243,489
September	106,307	95,532	16,476	15,953	6,265	4,486	245,019
October	107,114	95,995	16,549	16,005	6,264	4,433	246,360
November	107,858	96,731	16,418	16,035	6,330	4,433	247,805
December	105,785	95,335	16,076	16,253	6,317	4,887	244,653
January	104,338	96,733	16,013	16,939	6,198	5,119	245,340
February	106,019	99,864	16,889	16,797	6,356	4,966	250,891
March	106,669	100,448	17,208	17,123	6,437	5,033	252,918
April	106,130	97,170	16,129	16,301	6,420	5,289	247,439
May	105,834	96,055	16,290	16,023	6,320	5,333	245,855
June	105,535	94,700	16,343	15,961	6,178	5,335	244,052
PERSONS.							
July	422,989	340,438	99,929	88,426	45,329	26,444	1,023,555
August	423,926	340,106	99,895	88,688	45,344	26,160	1,024,119
September	426,435	341,625	99,037	88,968	45,867	26,075	1,028,007
October	428,586	343,012	98,671	89,388	45,966	26,026	1,031,649
November	431,187	344,659	96,283	89,325	46,060	26,116	1,033,630
December	428,150	343,238	91,791	89,374	45,867	27,287	1,025,707
January	427,882	346,731	92,975	90,719	45,704	27,849	1,031,860
February	431,460	351,141	95,038	90,513	46,148	27,426	1,041,726
March	432,904	352,263	96,514	90,953	46,361	27,250	1,046,245
April	432,653	347,235	95,820	89,754	46,062	27,532	1,039,056
May	432,439	345,208	97,566	89,005	45,600	27,440	1,037,258
June	431,543	342,765	99,374	88,987	45,232	27,249	1,035,150

6. Distribution of Employees According to Age.—The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in 1945, permits of a distribution of employees (excluding working proprietors) into seven age-groups from 1945-46 onwards, instead of three as in previous years. The particulars are collected as at June. The number employed in each age-group on the last pay-day in June, 1957 and 1958, are given below:—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1957 AND 1958.

(EXCLUDING WORKING PROPRIETORS.)

Age Group.	June, 1957.			June, 1958.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 16 years ..	9,158	6,828	15,986	8,710	6,924	15,634
16 years	13,310	8,292	21,602	13,817	9,180	22,997
17 "	15,289	9,276	24,565	16,347	9,790	26,137
18 "	16,104	9,715	25,819	16,802	10,025	26,827
19 "	15,219	8,986	24,205	16,337	9,421	25,758
20 "	14,162	7,959	22,121	15,315	8,737	24,052
21 " and over ..	696,914	191,910	888,824	703,770	189,975	893,745
Total	780,156	242,966	1,023,122	791,098	244,052	1,035,150

The following table shows the age distribution in sexes for Australia in June, 1939, and 1954 to 1958:—

FACTORIES: DISTRIBUTION OF EMPLOYEES IN JUNE, ACCORDING TO AGE, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

In June.	Under 16 Years.	16 Years.	17 Years.	18 Years.	19 Years.	20 Years.	21 Years and Over.	Total.
MALES.								
1939(a) ..	16,109	76,418					298,436	390,963
1954 ..	9,294	12,874	14,947	14,591	12,971	12,426	660,899	738,002
1955 ..	9,093	13,137	14,694	15,341	13,772	12,838	684,613	763,488
1956 ..	9,061	13,025	14,985	15,348	14,884	13,635	697,030	777,968
1957 ..	9,158	13,310	15,289	16,104	15,219	14,162	696,914	780,156
1958 ..	8,710	13,817	16,347	16,802	16,337	15,315	703,770	791,098
FEMALES.								
1939(a) ..	15,497	56,273					76,831	148,601
1954 ..	7,228	8,945	9,899	9,702	8,719	7,807	179,709	232,009
1955 ..	6,605	8,547	9,902	9,994	8,600	7,710	187,171	238,529
1956 ..	6,557	8,163	9,390	10,102	9,072	7,801	191,463	242,548
1957 ..	6,828	8,292	9,276	9,715	8,986	7,959	191,910	242,966
1958 ..	6,924	9,180	9,790	10,025	9,421	8,737	189,975	244,052
PERSONS.								
1939(a) ..	31,606	132,691					375,267	539,564
1954 ..	16,522	21,819	24,846	24,293	21,690	20,233	840,608	970,011
1955 ..	15,698	21,684	24,596	25,335	22,372	20,548	871,784	1,002,017
1956 ..	15,618	21,188	24,375	25,450	23,956	21,436	888,493	1,020,516
1957 ..	15,986	21,602	24,565	25,819	24,205	22,121	888,824	1,023,122
1958 ..	15,634	22,997	26,137	26,827	25,758	24,052	893,745	1,035,150

(a) Details for individual ages 16-20 years not available separately.

§ 6. Sex Distribution in Factories.

1. **Average Number of Males and Females Employed.**—The following table shows the average number of males and females employed in factories in each State for 1938-39 and 1953-54 to 1957-58:—

FACTORIES: MALES AND FEMALES EMPLOYED.

State.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
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MALES.

New South Wales ..	167,172	305,040	316,673	327,106	329,386	337,211
Victoria ..	136,218	240,698	251,675	258,006	258,119	259,404
Queensland ..	43,941	81,425	83,290	85,123	85,899	84,871
South Australia ..	35,406	70,657	73,714	76,144	75,543	75,909
Western Australia ..	18,704	40,439	42,294	43,340	42,122	42,039
Tasmania ..	11,150	20,249	21,045	22,128	22,482	23,081
Australia ..	412,591	758,508	788,691	811,847	813,551	822,515

FEMALES.

New South Wales ..	61,609	97,555	103,137	105,975	106,983	108,591
Victoria ..	65,613	90,579	94,973	97,179	97,085	97,739
Queensland ..	10,169	16,694	17,003	17,350	17,527	16,973
South Australia ..	7,965	14,846	15,851	16,445	16,438	16,563
Western Australia ..	4,507	7,020	7,020	6,768	6,626	6,423
Tasmania ..	2,652	4,340	4,407	4,934	5,188	5,003
Australia ..	152,515	231,034	242,391	48,651	249,847	251,292

2. **Rate of Variation for each Sex.**—The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown below for the years 1938-39 and 1953-54 to 1957-58:—

FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED.

State.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
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MALES.

New South Wales ..	1.69	4.57	3.81	3.29	0.70	2.38
Victoria ..	0.04	5.24	4.56	2.52	0.04	0.50
Queensland ..	3.79	4.89	2.29	2.20	0.91	-1.20
South Australia ..	-2.39	5.28	4.33	3.30	-0.79	0.48
Western Australia ..	-0.30	4.73	4.59	2.47	-2.81	-0.20
Tasmania ..	4.40	3.20	3.93	5.15	1.60	2.66
Australia ..	0.98	4.85	3.98	2.94	0.21	1.10

FEMALES.

New South Wales ..	1.88	10.22	5.72	2.75	0.95	1.50
Victoria ..	-0.03	10.42	4.85	2.32	-0.10	0.88
Queensland ..	3.96	7.73	1.85	2.04	1.02	-3.16
South Australia ..	1.98	11.05	6.77	3.75	-0.04	0.76
Western Australia ..	3.06	6.78	..	-3.59	-2.10	-3.06
Tasmania ..	6.51	12.03	1.54	11.96	5.15	-3.57
Australia ..	1.30	10.09	4.92	2.58	0.50	0.58

NOTE.—Minus sign (—) indicates decrease.

3. **Masculinity of Persons Employed in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by the proportion of males to females employed in each State. The following table shows particulars for the years 1938–39 and 1953–54 to 1957–58:—

FACTORIES: MASCULINITY(a) OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938–39	271	208	432	445	415	420	271
1953–54	313	266	488	476	576	467	328
1954–55	307	265	490	465	602	478	325
1955–56	309	265	491	463	640	448	327
1956–57	308	266	490	460	636	433	326
1957–58	311	265	500	458	655	461	327

(a) Number of males per 100 females.

For a number of years prior to 1926–27, there were on the average 300 males employed in factories for every 100 females, but by 1932–33, as a result of the particularly severe effect of the depression on the heavier industries where males predominate in number, there were only 239 males employed to every 100 females. With the subsequent recovery of employment in the heavier industries, the proportion of males per 100 females increased to 271 in 1937–38 and 1938–39. The enlistment of men in the armed services, the expansion of industry and the consequential absorption of women brought about by the 1939–45 War caused a decrease in masculinity from 1938–39 to 1943–44. However, following the cessation of hostilities in 1945 and the return of servicemen to civilian life, the number of females employed in factories declined and masculinity increased. In 1957–58, there were 327 males to every 100 females employed in factories.

4. **Employment of Females in Particular Industries.**—(i) *General.* The majority of females in manufacturing industries are employed in four classes, namely:—IV., Industrial Metals, Machines, etc.; VI., Textiles; VIII., Clothing; and IX., Food, Drink and Tobacco. In 1957–58, these industries accounted for 78.38 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 131 females to every 100 males and in Class VIII., Clothing, with 236 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes in 1957–58:—

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1957-58.

Class.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
IV. Industrial Metals, etc. ..	183,165	118,775	34,036	44,613	18,682	8,917	408,188
VI. Textiles and Textile Goods ..	9,082	16,789	780	1,320	531	1,288	29,790
(not Dress)	12,310	13,984	2,345	1,706	1,143	384	31,872
VIII. Clothing (except Knitted) ..	27,061	26,981	21,601	8,012	5,044	3,130	91,829
IX. Food, Drink and Tobacco ..	105,593	82,875	26,109	20,258	16,639	9,362	260,836
All Other Classes	337,211	259,404	84,871	75,909	42,039	23,081	822,515
Total							
FEMALES.							
IV. Industrial Metals, etc. ..	26,418	15,446	2,248	5,622	867	556	51,157
VI. Textiles and Textile Goods ..	13,096	21,289	1,379	1,270	418	1,633	39,085
(not Dress)	31,421	31,780	5,746	3,388	2,237	503	75,075
VIII. Clothing (except Knitted) ..	11,680	10,329	3,757	3,038	1,392	1,446	31,642
IX. Food, Drink and Tobacco ..	25,976	18,895	3,843	3,245	1,509	865	54,333
All Other Classes	108,591	97,739	16,973	16,563	6,423	5,003	251,292
Total							

(ii) *Females Employed in Clothing Manufacture.* The employment of females in the several industries of Class VIII., Clothing, the class in which the largest number of females is employed, and the relation of their number to that of the males so employed, are shown in the following table.

EMPLOYMENT IN CLOTHING INDUSTRIES, FEMININITY(a), 1957-58.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Fe- males.	Femi- ninity. (a)	Males.	Fe- males.	Femi- ninity. (a)	Males.	Fe- males.	Femi- ninity. (a)
Tailoring and Ready-made Clothing ..	2,986	14,403	482	2,865	6,914	241	1,074	3,215	299
Waterproof and Oilskin Clothing ..	114	535	469	116	334	288	10	52	520
Dressmaking, Hemstitching ..	133	1,358	1,021	1,211	7,528	622	150	2,537	1,691
Millinery ..	240	1,258	524	180	636	353	38	399	1,050
Shirts, Collars, Underclothing ..	465	4,174	898	723	5,626	778	164	1,886	1,150
Foundation Garments ..	116	1,412	1,217	234	1,504	643	23	153	665
Handkerchiefs, Ties and Scarves ..	163	1,028	631	76	373	491	33	121	367
Hats and Caps ..	479	476	99	202	171	85	26	109	429
Gloves ..	103	348	338	35	218	623	41	141	344
Boots and Shoes (not Rubber) ..	3,367	3,410	101	5,371	5,721	107	1,689	1,281	76
Boot and Shoe Repairing ..	1,505	112	7	712	54	7	668	66	10
Boot and Shoe Accessories ..	197	103	52	375	211	56	39	7	18
Umbrellas and Walking Sticks ..	55	95	173	21	66	314	17	40	235
Dyeworks and Cleaning (including Renovating and Repairing) ..	2,342	2,333	100	1,756	2,054	117	1,606	1,867	116
Other ..	45	376	836	107	370	346	..	..	..
Total ..	12,310	31,421	255	13,984	31,780	227	5,578	11,874	213

(a) Number of females per 100 males.

§ 7. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure, amongst other things, that a proper period shall be devoted to primary education, and that the early years of labour shall not exhaust the worker before the attainment of full growth.

2. **Number of Children Employed, 1939, 1957 and 1958.**—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940, to 15,634 in June, 1958, was probably caused by several factors, including (i) the raising of the school leaving age in New South Wales and Tasmania, (ii) fewer children available for employment owing to the decline in the birth rate and (iii) the high level of employment which enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years mentioned:—

FACTORIES: CHILDREN(a) EMPLOYED, JUNE.

State.	1939.			1957.			1958.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	5,759	7,084	12,843	2,584	1,981	4,565	2,575	1,929	4,504
Victoria ..	6,167	5,005	11,172	2,966	2,480	5,446	2,805	2,608	5,413
Queensland ..	1,790	1,334	3,124	1,711	1,205	2,916	1,588	1,151	2,739
South Australia	1,296	1,053	2,349	878	724	1,602	873	796	1,669
Western Australia	705	521	1,226	898	327	1,225	769	327	1,096
Tasmania ..	392	500	892	121	111	232	100	113	213
Australia ..	16,109	15,497	31,606	9,158	6,828	15,986	8,710	6,924	15,634

(a) Under sixteen years of age.

3. **Industries Employing Child Labour.**—The distribution of children employed in factories in June, 1958, and the proportion of children employed to total employees are given in the following table according to the class of industry:—

FACTORIES: CHILDREN^(a) EMPLOYED, BY CLASSES, AUSTRALIA, JUNE, 1958.

Class of Industry.	Children Employed.		Total Employees. (b)		Proportion (per cent.) of Children Employed to Total Employees. (b)	
	Males.	Females.	Males.	Females.	Males.	Females.
Industrial Metals, Machines, Conveyances	3,872	701	396,137	52,249	0.98	1.34
Textiles and Textile Goods (not Dress)	465	1,347	28,471	37,494	1.63	3.59
Clothing (except Knitted)	551	2,772	26,483	72,072	2.08	3.85
Food, Drink and Tobacco	1,008	735	87,648	29,054	1.15	2.53
Sawmills, Joinery, Boxes, etc.	706	104	51,988	3,050	1.36	3.41
Furniture of Wood, Bedding, etc.	459	91	16,667	3,794	2.75	2.40
Paper, Stationery, Printing, Bookbinding	698	608	48,222	17,210	1.48	3.53
All other Industries	951	566	135,482	29,129	0.70	1.94
Total	8,710	6,924	791,098	244,052	1.10	2.84

(a) Under sixteen years of age.

(b) Excludes working proprietors.

4. **Apprenticeship.**—In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 8. Value of Production, Materials Used, Salaries and Wages.

Note.—In all tables relating to salaries and wages paid in factories, the amounts drawn by working proprietors are excluded.

1. **General.**—The gross value of factory output for 1957–58 was £4,273,882,000, of which £2,386,361,000 was the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £158,798,000 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the gross value of output, namely, £1,728,723,000, represents the net value of factory production defined as “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production other than depreciation (see para. 6 of this section, p. 175). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories. They therefore have little statistical significance. The net value of factory production indicates the relative importance of manufacturing in the Australian economy in constant money terms. The total amount of salaries and wages paid in factories in 1957–58 was £929,290,000. This figure, which excludes amounts drawn by working proprietors, was the highest ever recorded and shows an increase of £38,200,000 or 4.29 per cent. on that for the previous year.

2. Salaries and Wages Paid.—(i) *In Classes of Industry, 1957–58.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:—

FACTORIES: SALARIES AND WAGES PAID, 1957–58.

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	8,406	6,118	1,742	1,834	1,248	743	20,091
II. Bricks, Pottery, Glass, etc. ..	11,122	5,262	1,061	1,978	1,283	327	21,033
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	21,590	17,235	1,537	3,038	2,771	900	47,071
IV. Industrial Metals, Machines, Conveyances ..	199,129	124,314	28,633	45,217	15,450	9,033	421,776
V. Precious Metals, Jewellery, Plate ..	1,906	2,066	203	315	153	11	4,654
VI. Textiles and Textile Goods (not Dress) ..	16,705	29,353	1,268	2,046	700	2,144	52,216
VII. Skins and Leather (not Clothing or Footwear) ..	4,402	3,841	979	1,145	513	51	10,931
VIII. Clothing (except Knitted) ..	27,346	30,127	4,234	3,061	1,719	528	67,015
IX. Food, Drink and Tobacco ..	32,139	32,560	21,848	8,873	5,009	3,717	104,146
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	16,408	12,470	7,568	4,070	4,345	2,666	47,527
XI. Furniture of Wood, Bedding, etc. ..	7,231	5,143	1,862	1,489	862	298	16,885
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	26,011	21,031	4,471	3,384	2,105	4,286	61,288
XIII. Rubber ..	7,822	6,884	1,280	1,131	208	147	17,472
XIV. Musical Instruments ..	650	218	39	28	25		960
XV. Miscellaneous Products ..	8,466	8,582	393	599	256	153	18,449
<i>Total, Classes I. to XV.</i> ..	<i>389,333</i>	<i>305,204</i>	<i>77,118</i>	<i>78,208</i>	<i>36,647</i>	<i>25,004</i>	<i>911,514</i>
XVI. Heat, Light and Power ..	7,359	5,336	1,840	1,636	1,288	317	17,776
Grand Total ..	396,692	310,540	78,958	79,844	37,935	25,321	929,290

(ii) *Totals and Averages, 1938–39 and 1953–54 to 1957–58.* The following table shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years indicated. The figures exclude working proprietors and the amounts drawn by them:—

FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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TOTAL AMOUNT PAID (£'000).

1938–39	44,606	36,027	10,887	8,169	4,574	2,480	106,743
1953–54	293,586	236,037	63,433	63,110	31,590	17,381	705,137
1954–55	326,615	262,750	68,300	70,373	34,738	18,864	781,640
1955–56	359,023	286,944	72,460	76,237	37,207	21,598	853,469
1956–57	378,332	296,608	77,780	77,818	36,916	23,636	891,090
1957–58	396,692	310,540	78,958	79,844	37,935	25,321	929,290

AVERAGE PER EMPLOYEE (£.)

1938–39	201.77	185.64	210.78	195.57	207.90	188.31	196.31
1953–54	758.65	743.29	678.35	761.27	703.26	734.60	742.62
1954–55	804.43	790.00	714.83	810.32	744.17	771.27	789.35
1955–56	860.91	841.16	740.93	848.43	785.23	828.65	837.35
1956–57	900.06	869.21	789.63	872.87	801.95	886.68	871.98
1957–58	923.40	904.81	814.86	891.80	829.22	936.70	900.46

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class VIII., Clothing, comprising a relatively high percentage of women and children. The highest average wages per employee in 1957-58 were paid in Tasmania, New South Wales and Victoria, in that order.

The average earnings per employee rose annually from 1938-39 to 1943-44 when a level of £291 was attained as a result of war-time conditions. In 1944-45, the average dropped to £285 and remained at this level in 1945-46. From 1945-46, average earnings rose each year and in 1957-58 reached a record level of slightly over £900.

(iii) *Total and Average Earnings of Males and Females, 1938-39 and 1953-54 to 1957-58.* Particulars for these years are given in the following table:—

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES—MALES AND FEMALES.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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MALES.

TOTAL AMOUNT PAID (£'000).

1938-39	38,272	29,006	9,920	7,488	4,129	2,234	91,049
1953-54	245,749	190,573	56,608	56,299	28,684	15,320	593,233
1954-55	274,467	213,377	61,125	62,942	31,748	16,736	660,395
1955-56	302,880	234,784	64,918	68,213	34,236	19,146	724,177
1956-57	318,612	241,587	69,873	69,645	33,895	20,878	754,490
1957-58	334,245	253,342	70,934	71,153	34,938	22,516	787,148

AVERAGE PER MALE EMPLOYEE (£).

1938-39	239.24	224.47	238.59	220.95	235.49	212.09	231.84
1953-54	844.05	833.71	733.34	824.49	754.20	791.86	820.98
1954-55	906.61	891.40	773.47	883.13	797.80	833.05	877.84
1955-56	967.45	955.00	802.89	925.47	839.62	904.78	933.92
1956-57	1,010.17	981.79	857.48	953.42	856.63	970.11	970.91
1957-58	1,034.19	1,023.48	881.32	970.33	884.66	1,018.45	1,001.28

FEMALES.

TOTAL AMOUNT PAID (£'000).

1938-39	6,334	7,021	967	681	445	246	15,694
1953-54	47,837	45,464	6,825	6,811	2,906	2,061	111,904
1954-55	52,148	49,373	7,175	7,431	2,990	2,128	121,245
1955-56	56,143	52,160	7,542	8,024	2,971	2,452	129,292
1956-57	59,720	55,020	7,907	8,174	3,021	2,758	136,600
1957-58	62,447	57,198	8,004	8,691	2,997	2,805	142,142

AVERAGE PER FEMALE EMPLOYEE (£).

1938-39	103.66	108.25	96.00	86.44	99.58	93.19	103.92
1953-54	499.19	510.96	418.23	465.95	421.93	477.84	493.10
1954-55	514.94	529.63	431.68	477.12	434.21	487.12	509.56
1955-56	540.06	547.42	445.22	496.84	449.61	500.06	530.23
1956-57	569.11	578.14	464.68	507.53	467.32	537.11	557.95
1957-58	586.89	597.81	487.69	536.42	479.14	569.66	578.10

(iv) *Managers, Clerical Staff and Other Employees.* A further analysis of salaries and wages paid is given in the following table for 1957-58 and shows the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF, ETC., AND OTHER EMPLOYEES, AUSTRALIA, 1957-58.

Class of Industry.	Managers, Clerical Staff, Chemists, Draftsmen, etc.		All Other Employees.	
	Males.	Females.	Males.	Females.
	£'000.	£'000.	£'000.	£'000.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,557	434	16,971	129
II. Bricks, Pottery, Glass, etc.	1,901	440	17,974	718
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	10,736	2,237	30,026	4,072
IV. Industrial Metals, Machines, Conveyances	61,015	12,761	330,773	17,226
V. Precious Metals, Jewellery, Plate	556	204	3,443	451
VI. Textiles and Textile Goods (not Dress)	4,880	1,981	24,855	20,499
VII. Skins and Leather (not Clothing or Footwear)	1,275	259	7,892	1,505
VIII. Clothing (except Knitted)	4,789	2,503	20,910	38,813
IX. Food, Drink and Tobacco	13,950	3,870	72,663	13,663
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	4,931	1,068	40,948	580
XI. Furniture of Wood, Bedding, etc.	1,692	527	13,109	1,557
XII. Paper, Stationery, Printing, Bookbinding, etc.	7,987	2,610	43,482	7,210
XIII. Rubber	2,585	560	12,708	1,618
XIV. Musical Instruments	104	23	762	71
XV. Miscellaneous Products	2,660	808	11,333	3,649
<i>Total, Classes I. to XV.</i>	<i>121,618</i>	<i>30,285</i>	<i>647,849</i>	<i>111,761</i>
XVI. Heat, Light and Power	1,726	71	15,954	25
<i>Grand Total</i>	<i>123,344</i>	<i>30,356</i>	<i>663,803</i>	<i>111,786</i>
Average paid per employee	£ 1,356.81	£ 622.56	£ 954.79	£ 567.11

3. Power, Fuel and Light Used.—(i) *In Classes of Industry, 1957-58.* The expenditure by factories on power, fuel and light, including the value of lubricants and water, is of considerable importance; in 1957-58 it amounted to a new high level of £158,798,000, an increase of £5,688,000 as compared with the previous year and more than ten times the corresponding value in 1938-39. The following table shows the value of power, fuel and light, etc., used in the different classes of industry:—

**FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a), 1957-58.
(£'000.)**

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,881	2,028	773	902	545	335	7,464
II. Bricks, Pottery, Glass, etc.	3,608	1,974	404	587	542	142	7,257
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	5,901	6,355	322	820	2,055	338	15,791
IV. Industrial Metals, Machines, Conveyances	29,632	6,963	1,744	5,801	1,046	1,912	47,098
V. Precious Metals, Jewellery, Plate	138	142	12	36	11	1	340
VI. Textiles and Textile Goods (not Dress)	1,482	2,367	65	215	55	222	4,406
VII. Skins and Leather (not Clothing or Footwear)	412	469	77	146	70	7	1,181
VIII. Clothing (except Knitted)	894	905	177	128	84	41	2,229
IX. Food, Drink and Tobacco	6,023	5,747	2,794	1,350	1,000	499	17,413
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	1,498	663	467	207	326	311	3,472
XI. Furniture of Wood, Bedding, etc.	182	121	47	40	23	7	420
XII. Paper, Stationery, Printing, Bookbinding, etc.	1,378	1,792	228	294	93	1,219	5,004
XIII. Rubber	1,046	1,088	169	135	26	21	2,485
XIV. Musical Instruments	42	11	1	1	(b)	..	55
XV. Miscellaneous Products	555	568	11	50	13	5	1,202
<i>Total, Classes I. to XV.</i>	<i>55,672</i>	<i>31,193</i>	<i>7,291</i>	<i>10,712</i>	<i>5,889</i>	<i>5,060</i>	<i>115,817</i>
XVI. Heat, Light and Power	17,780	11,569	5,861	4,221	3,536	14	42,981
<i>Grand Total</i>	<i>73,452</i>	<i>42,762</i>	<i>13,152</i>	<i>14,933</i>	<i>9,425</i>	<i>5,074</i>	<i>158,798</i>

(a) Includes value of lubricants and water.

(b) Less than £500.

(ii) *Values of Items, 1957-58.* The following table shows the values of the various items of power, fuel and light used in factories in each State, during the year:—

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(a), 1957-58.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal, Black	20,880	2,834	7,130	(b) 4,436	2,535	1,177	38,992
" Brown .. ..	..	7,882	..	..	..	..	7,882
Brown Coal Briquettes .. ..	..	1,737	..	..	..	..	1,737
Coke	12,383	1,012	385	3,261	196	328	17,565
Wood	434	563	407	410	416	219	2,449
Fuel Oil	8,684	12,215	1,169	2,237	3,497	668	28,470
Tar (Fuel)	995	241	10	107	28	24	1,405
Electricity	20,747	11,970	3,041	3,345	1,991	2,317	43,411
Gas	3,516	1,082	166	221	82	35	5,102
Other (Charcoal, etc.)	2,048	878	128	302	229	120	3,705
Water	2,534	1,486	362	374	240	94	5,090
Lubricating Oils	1,231	862	354	240	211	92	2,990
Total	73,452	42,762	13,152	14,933	9,425	5,074	158,798

(a) Includes value of lubricants and water.

(b) Includes £1,444,000 the value of 672,000 tons of Leigh Creek coal.

(iii) *Quantities of Fuel Used, 1957-58.* The following table shows the quantities of fuel used in factories in each State during the year:—

FACTORIES: QUANTITIES OF FUEL USED, 1957-58.

Particulars.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal, Black	'000 tons	5,844	453	1,640	(a) 1,189	562	245	9,933
" Brown	"	..	9,127	..	..	..	..	9,127
Brown Coal Briquettes	"	..	357	..	..	..	..	357
Coke	"	2,117	111	35	346	20	19	2,648
Wood	"	199	266	218	199	313	98	1,293
Fuel Oil	'000 gals.	137,188	223,063	11,638	35,102	53,579	8,181	468,751
Tar (Fuel)	"	32,618	4,170	251	2,540	754	469	40,802

(a) Includes 672,000 tons of Leigh Creek coal.

(iv) *Total Value, 1938-39 and 1953-54 to 1957-58.* The next table shows the amounts expended on power, fuel and light during these years:—

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED.(a)

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938-39	7,652	4,000	1,423	1,018	1,169	438	15,700
1953-54	58,447	29,080	10,655	12,500	6,972	2,804	120,458
1954-55	60,925	31,767	11,620	12,897	8,046	3,127	128,382
1955-56	66,469	34,598	11,980	12,830	9,053	4,097	139,027
1956-57	71,445	40,381	13,130	14,130	9,225	4,799	153,110
1957-58	73,452	42,762	13,152	14,933	9,425	5,074	158,798

(a) Includes value of lubricants and water.

4. *Value of Materials Used.*—(i) *In Classes of Industry, 1957-58.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1957-58 reached £2,386,361,000, representing

55.8 per cent. of the value of the final output (*see* para. 5). The following table shows the value of the materials used in various classes of industry in each State:—

FACTORIES: VALUE OF MATERIALS USED, 1957-58.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	29,922	12,370	3,959	4,209	2,391	1,243	54,094
II. Bricks, Pottery, Glass, etc. ..	9,504	5,102	901	2,354	762	223	18,846
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	118,164	98,261	8,590	13,616	37,838	2,338	278,807
IV. Industrial Metals, Machines, Conveyances ..	448,503	202,772	48,516	88,234	22,430	16,346	826,801
V. Precious Metals, Jewellery, Plate ..	1,891	2,871	95	211	74	8	5,150
VI. Textiles and Textile Goods (not Dress) ..	39,463	77,985	4,440	4,103	4,363	6,097	136,451
VII. Skins and Leather (not Clothing or Footwear) ..	12,668	11,129	2,828	5,974	1,061	326	33,986
VIII. Clothing (except Knitted) ..	46,206	48,160	5,750	3,420	2,085	320	105,941
IX. Food, Drink and Tobacco ..	166,325	183,714	140,028	38,192	26,464	16,190	570,913
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	39,132	26,946	15,789	10,409	7,504	5,781	105,561
XI. Furniture of Wood, Bedding, etc. ..	14,503	10,123	3,984	2,711	1,813	486	33,620
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	49,467	46,425	7,602	5,789	3,152	6,928	119,363
XIII. Rubber ..	17,867	17,415	3,570	1,863	372	198	41,285
XIV. Musical Instruments ..	1,036	251	29	8	15	..	1,339
XV. Miscellaneous Products ..	14,041	18,556	509	941	296	91	34,434
<i>Total, Classes I. to XV.</i>	<i>1,008,692</i>	<i>762,080</i>	<i>246,590</i>	<i>182,034</i>	<i>110,620</i>	<i>56,575</i>	<i>2,366,591</i>
XVI. Heat, Light and Power ..	8,236	6,379	2,057	1,846	905	347	19,770
Grand Total ..	1,016,928	768,459	248,647	183,880	111,525	56,922	2,386,361

(a) *See* para. 1 of this section, p. 169.

(ii) *Total Amount, 1938-39 and 1953-54 to 1957-58.* The following table shows the value of materials used in factories for these years:—

FACTORIES: VALUE OF MATERIALS USED.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	120,502	82,971	42,596	20,309	9,604	5,321	281,303
1953-54 ..	721,311	548,111	211,451	152,590	72,468	42,042	1,747,973
1954-55 ..	802,617	616,666	224,336	169,136	80,583	47,360	1,940,698
1955-56 ..	884,582	674,846	231,584	183,196	96,360	53,751	2,124,319
1956-57 ..	948,393	707,729	244,974	184,209	104,969	56,909	2,247,183
1957-58 ..	1,016,928	768,459	248,647	183,880	111,525	56,922	2,386,361

(a) *See* para. 1 of this section, p. 169.

5. *Value of Output.*—(i) *In Classes of Industry, 1957-58.* The value of the output of factories in the various classes in each State in 1957-58 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (*see* paras. 1 and 6 of this section).

FACTORIES: VALUE OF OUTPUT, 1957-58.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	49,629	26,220	8,274	9,188	5,892	2,897	102,100
II. Bricks, Pottery, Glass, etc. ..	30,813	15,844	3,152	6,256	3,508	849	60,422
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	192,241	153,180	14,063	23,086	52,282	5,405	440,257
IV. Industrial Metals, Machines, Conveyances ..	819,158	408,199	96,134	162,639	47,851	34,414	1,568,395
V. Precious Metals, Jewellery, Plate ..	5,404	6,436	423	755	370	31	13,419
VI. Textiles and Textile Goods (not Dress) ..	71,293	130,872	6,612	7,935	5,864	9,779	232,355
VII. Skins and Leather (not Clothing or Footwear) ..	19,676	17,607	4,433	7,555	1,884	402	51,557
VIII. Clothing (except Knitted) ..	91,604	97,412	12,898	8,132	5,023	1,171	216,240
IX. Food, Drink and Tobacco ..	249,608	260,893	185,709	55,131	38,001	23,920	813,262
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	70,390	49,640	28,850	17,145	15,213	10,848	192,086
XI. Furniture of Wood, Bedding, etc. ..	26,803	19,307	7,093	5,227	3,298	1,013	62,741
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	100,290	90,058	16,289	12,707	7,348	18,381	245,073
XIII. Rubber ..	30,247	31,959	6,494	3,995	833	451	73,979
XIV. Musical Instruments ..	2,614	699	86	48	52	..	3,499
XV. Miscellaneous Products ..	30,216	35,107	1,153	2,150	744	285	69,655
<i>Total, Classes I. to XV.</i>	<i>1,789,986</i>	<i>1,343,433</i>	<i>391,663</i>	<i>321,949</i>	<i>188,163</i>	<i>109,846</i>	<i>4,145,040</i>
XVI. Heat, Light and Power ..	58,256	34,264	14,094	10,149	8,099	3,980	128,842
Grand Total ..	1,848,242	1,377,697	405,757	332,098	196,262	113,826	4,273,882

(a) See para. 1 of this section, p. 169

(ii) *Total, 1938-39 and 1953-54 to 1957-58.* The following table shows the value of output in each State during these years:—

FACTORIES: VALUE OF OUTPUT.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	218,420	152,967	63,321	35,005	19,549	11,158	500,420
1953-54 ..	1,299,801	985,505	332,361	265,311	134,587	77,911	3,095,476
1954-55 ..	1,446,669	1,100,656	356,017	293,061	149,585	88,601	3,434,589
1955-56 ..	1,595,137	1,201,392	371,644	316,962	175,146	103,779	3,764,060
1956-57 ..	1,726,637	1,276,141	396,504	325,105	187,636	110,390	4,022,413
1957-58 ..	1,848,242	1,377,697	405,757	332,098	196,262	113,826	4,273,882

(a) See para. 1 of this section p. 169.

6. Value of Production.—(i) *In Classes of Industry, 1957-58.* The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was agreed that no deduction should be made on this account. The net value of production as given in the following tables is obtained therefore, by deducting only "value of materials used" and "value of fuel used" from the "value of output".

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that, when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other overhead charges, as well as depreciation, also have to be taken into account.

The value of factory production, therefore, approximates "net value added" in the manufacturing process. It amounted in 1957-58 to £1,729 million to which Class IV., Industrial Metals, etc., with £694 million made the greatest contribution. The net value of production in 1957-58 showed an increase of £107 million (6.57 per cent.) over the figure for 1956-57 and £1,525 million over the value of production recorded in 1938-39.

The following table shows the value of production in 1957-58 in each State for the various classes of industry:—

FACTORIES: VALUE OF PRODUCTION, 1957-58.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	16,826	11,822	3,543	4,076	2,956	1,319	40,542
II. Bricks, Pottery, Glass, etc. ..	17,701	8,768	1,846	3,316	2,204	484	34,319
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	68,176	48,563	5,151	8,650	12,389	2,730	145,659
IV. Industrial Metals, Machines, Conveyances ..	341,024	198,464	45,873	68,605	24,374	16,156	694,496
V. Precious Metals, Jewellery, Plate ..	3,375	3,424	315	508	285	22	7,929
VI. Textiles and Textile Goods (not Dress) ..	30,348	50,520	2,107	3,618	1,445	3,460	91,498
VII. Skins and Leather (not Clothing or Footwear) ..	6,595	6,009	1,529	1,435	753	69	16,390
VIII. Clothing (except Knitted) ..	44,504	48,347	6,972	4,584	2,853	810	108,070
IX. Food, Drink and Tobacco ..	77,260	71,433	42,887	15,588	10,537	7,231	224,936
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	29,760	22,030	12,594	6,529	7,384	4,756	83,053
XI. Furniture of Wood, Bedding, etc. ..	12,118	9,063	3,062	2,475	1,463	520	28,701
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	49,444	41,841	8,459	6,624	4,103	10,235	120,706
XIII. Rubber ..	11,334	13,457	2,755	1,997	435	231	30,209
XIV. Musical Instruments ..	1,536	437	56	40	36	..	2,105
XV. Miscellaneous Products ..	15,620	15,983	633	1,159	436	188	34,019
<i>Total, Classes I. to XV.</i> ..	<i>725,621</i>	<i>550,161</i>	<i>137,782</i>	<i>129,204</i>	<i>71,653</i>	<i>48,211</i>	<i>1,662,632</i>
XVI. Heat, Light and Power ..	32,241	16,315	6,176	4,081	3,659	3,619	66,091
Grand Total ..	757,862	566,476	143,958	133,285	75,312	51,830	1,728,723

(a) See para. 1 of this section, p. 169.

(ii) *Total and Averages, 1938-39 and 1953-54 to 1957-58.* The value of production and the amount per person employed and per head of population are shown in the following table. For Australia as a whole, the value of production per head of population increased from £29.34 in 1938-39 to £178.45 in 1957-58. For value per person employed, the increase was not quite so pronounced (from £360 per head in 1938-39 to £1,610 in 1957-58).

FACTORIES: VALUE OF PRODUCTION.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
VALUE. (£'000.)							
1938-39	90,266	65,996	19,302	13,678	8,776	5,399	203,417
1953-54	520,043	408,314	110,255	100,221	55,147	33,065	1,227,045
1954-55	583,127	452,223	120,061	111,028	60,956	38,114	1,365,509
1955-56	644,086	491,948	128,080	120,936	69,733	45,931	1,500,714
1956-57	706,799	528,031	138,400	126,766	73,442	48,682	1,622,120
1957-58	757,862	566,476	143,958	133,285	75,312	51,830	1,728,723

PER PERSON EMPLOYED. (£.)

1938-39	395	327	357	315	378	391	360
1953-54	1,292	1,233	1,124	1,172	1,162	1,345	1,240
1954-55	1,389	1,305	1,197	1,240	1,236	1,497	1,324
1955-56	1,487	1,385	1,250	1,306	1,392	1,697	1,415
1956-57	1,620	1,487	1,343	1,378	1,507	1,759	1,525
1957-58	1,700	1,586	1,414	1,441	1,554	1,846	1,610

PER HEAD OF POPULATION. (£.)

1938-39	33.00	35.25	19.14	22.98	18.80	22.72	29.34
1953-54	152.70	168.53	84.78	127.50	87.44	106.85	137.86
1954-55	168.56	181.75	90.59	137.50	93.93	121.78	150.22
1955-56	182.75	191.80	94.69	144.93	104.23	143.90	161.10
1956-57	196.99	200.00	100.26	147.17	107.29	149.27	170.12
1957-58	207.16	209.25	102.59	150.44	107.81	155.13	178.45

(a) See para. 1 of this section, p. 169.

§ 9. Value of Land, Buildings, Plant and Machinery.

1. General.—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1957-58:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1957-58.

(£'000.)

Value of—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Land and buildings	350,169	280,207	63,927	61,084	36,846	59,453	851,686
Plant and machinery	415,838	310,879	104,598	79,336	63,840	46,860	1,021,351
Total ..	766,007	591,086	168,525	140,420	100,686	106,313	1,873,037

(a) Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia.* The following table shows, for Australia as a whole, the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938-39 and 1953-54 to 1957-58:—

FACTORIES: VALUE OF LAND AND BUILDINGS(a), AUSTRALIA.
(£'000.)

Class of Industry.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,779	8,091	9,103	11,228	12,686	13,714
II. Bricks, Pottery, Glass, etc. ..	2,954	8,535	9,849	11,301	14,498	14,986
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	7,377	36,931	44,658	61,863	67,719	70,090
IV. Industrial Metals, Machines, Conveyances ..	34,841	159,325	184,934	218,667	252,837	300,343
V. Precious Metals, Jewellery, Plate	633	2,523	2,888	3,233	3,525	3,777
VI. Textiles and Textile Goods (not Dress) ..	6,000	25,443	29,651	31,931	37,010	40,199
VII. Skins and Leather (not Clothing or Footwear) ..	2,096	6,072	6,452	6,288	7,074	7,221
VIII. Clothing (except Knitted) ..	10,624	28,584	31,163	33,920	37,203	39,855
IX. Food, Drink and Tobacco ..	33,273	86,625	94,070	108,335	118,413	129,073
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	4,107	18,297	21,225	23,141	25,347	28,464
XI. Furniture of Wood, Bedding, etc.	2,533	8,069	8,981	9,915	11,223	12,992
XII. Paper, Stationery, Printing, Book-binding, etc. ..	10,639	30,444	34,156	40,256	44,912	52,854
XIII. Rubber ..	1,676	6,668	7,430	8,581	9,563	11,688
XIV. Musical Instruments ..	105	468	528	621	987	636
XV. Miscellaneous Products ..	1,433	7,570	8,299	9,946	11,491	12,922
<i>Total, Classes I. to XV. ..</i>	<i>121,070</i>	<i>433,645</i>	<i>493,387</i>	<i>579,226</i>	<i>654,488</i>	<i>738,814</i>
XVI. Heat, Light and Power ..	9,850	49,786	62,609	76,356	107,507	112,872
Grand Total ..	130,920	483,431	555,996	655,582	761,995	851,686

(a) Includes estimated value of rented premises.

(ii) *In Classes of Industry in States, 1957-58.* The following table gives particulars of the various classes of industry in each State:—

FACTORIES: VALUE OF LAND AND BUILDINGS(a), 1957-58.
(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,012	4,365	861	1,337	1,459	680	13,714
II. Bricks, Pottery, Glass, etc. ..	8,023	3,603	747	1,074	1,255	284	14,986
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	31,178	28,851	1,481	2,896	4,658	1,026	70,090
IV. Industrial Metals, Machines, Conveyances ..	143,099	95,603	16,462	24,870	11,406	8,903	300,343
V. Precious Metals, Jewellery, Plate ..	1,437	1,721	129	290	176	24	3,777
VI. Textiles and Textile Goods (not Dress) ..	12,977	22,475	763	1,769	703	1,512	40,199
VII. Skins and Leather (not Clothing or Footwear) ..	2,977	2,806	356	679	286	117	7,221
VIII. Clothing (except Knitted) ..	16,661	16,516	2,517	1,975	1,612	574	39,855
IX. Food, Drink and Tobacco ..	42,173	43,318	21,073	10,126	7,619	4,764	129,073
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	11,187	7,590	2,844	3,753	1,674	1,416	28,464
XI. Furniture of Wood, Bedding, etc. ..	4,960	4,490	1,563	912	786	281	12,992
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	21,875	17,362	4,280	2,409	1,505	5,423	52,854
XIII. Rubber ..	4,437	4,680	1,132	848	389	202	11,688
XIV. Musical Instruments ..	379	183	16	27	31	103	636
XV. Miscellaneous Products ..	5,960	5,851	275	438	295	103	12,922
<i>Total, Classes I. to XV. ..</i>	<i>312,335</i>	<i>259,414</i>	<i>54,499</i>	<i>53,403</i>	<i>33,854</i>	<i>25,309</i>	<i>738,814</i>
XVI. Heat, Light and Power ..	37,834	20,793	9,428	7,681	2,992	34,144	112,872
Grand Total ..	350,169	280,207	63,927	61,084	36,846	59,453	851,686

(a) Includes estimated value of rented premises.

(iii) *Totals in each State.* The following table shows the value of land and buildings in each State for the years 1938-39 and 1953-54 to 1957-58:—

FACTORIES: VALUE OF LAND AND BUILDINGS.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39	57,353	42,026	12,299	8,711	6,814	3,717	130,920
1953-54	196,724	158,389	40,003	36,579	24,739	26,997	483,431
1954-55	221,519	186,324	46,187	42,133	30,230	29,603	555,996
1955-56	260,268	214,921	52,602	48,353	32,859	46,579	635,582
1956-57	303,981	252,024	58,654	55,343	35,520	56,473	761,995
1957-58	350,169	280,207	63,927	61,084	36,846	59,453	851,686

(a) Includes estimated value of rented premises.

Prior to 1929-30, the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, an increase of £95 million in 27 years. During the three years ended 1932-33, there was a decline of £12 million to £105.8 million, but since that year the value has risen annually and it stood at £851.7 million in 1957-58.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1938-39 and 1953-54 to 1957-58.* The following table shows for Australia the approximate value of plant and machinery used in factories:—

FACTORIES: VALUE OF PLANT AND MACHINERY(a), AUSTRALIA.

(£'000.)

Class of Industry.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	7,028	17,829	20,625	23,512	27,351	30,623
II. Bricks, Pottery, Glass, etc. ..	3,145	9,741	11,000	12,319	13,138	13,443
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	6,754	53,528	97,508	125,016	127,732	137,520
IV. Industrial Metals, Machines, Conveyances ..	33,038	148,178	168,651	202,286	251,161	289,969
V. Precious Metals, Jewellery, Plate ..	197	1,002	1,094	1,219	1,374	1,388
VI. Textiles and Textile Goods (not Dress) ..	6,658	27,567	29,658	31,155	32,570	36,040
VII. Skins and Leather (not Clothing or Footwear) ..	973	4,034	4,153	4,225	4,332	4,240
VIII. Clothing (except Knitted) ..	2,557	12,363	13,452	14,340	15,699	15,621
IX. Food, Drink and Tobacco ..	32,101	90,624	101,700	115,904	124,406	131,708
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	3,907	19,002	21,827	23,626	25,045	27,043
XI. Furniture of Wood, Bedding, etc. ..	728	2,870	3,186	3,388	3,632	3,802
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	9,188	41,866	46,129	51,405	53,755	59,509
XIII. Rubber ..	1,368	5,677	6,843	8,971	8,626	10,234
XIV. Musical Instruments ..	12	458	444	509	682	429
XV. Miscellaneous Products ..	758	5,968	6,614	7,459	8,515	10,417
<i>Total, Classes I. to XV. ..</i>	<i>108,412</i>	<i>440,707</i>	<i>532,884</i>	<i>625,334</i>	<i>698,018</i>	<i>771,986</i>
XVI. Heat, Light and Power ..	35,250	140,008	165,408	178,206	225,936	249,365
Grand Total	143,662	580,715	698,292	803,540	923,954	1,021,351

(a) Includes estimated value of rented plant and machinery.

Except for the years 1930-31 to 1933-34, when decreases were recorded, there has been a continuous increase in the value of plant and machinery in factories in Australia. The increase in 1957-58 of £97.4 million over 1956-57 extended over all industrial classes except Classes VII., Skins and Leather, etc., VIII. Clothing (except Knitted) and XIV. Musical Instruments. The greatest increase occurred in Class IV., Industrial Metals, Machines, Conveyances.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the years 1938–39 and 1953–54 to 1957–58. During 1957–58 increases occurred in all States, New South Wales showing the largest increase, £52.5 million.

FACTORIES: VALUE OF PLANT AND MACHINERY.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938–39	62,693	38,627	18,095	9,750	8,095	6,402	143,662
1953–54	233,022	181,058	64,160	46,788	28,195	27,492	580,715
1954–55	258,596	226,347	76,367	52,145	54,958	29,879	698,292
1955–56	298,913	258,295	85,777	63,596	56,534	40,425	803,540
1956–57	363,310	290,785	89,904	71,847	63,272	44,836	923,954
1957–58	415,838	310,879	104,598	79,336	63,840	46,860	1,021,351

(a) Includes estimated value of rented plant and machinery.

(iii) *Value according to Class of Industry, 1957–58.* The following table shows the value of plant and machinery used in factories in each State during 1957–58 according to class of industry:—

FACTORIES: VALUE OF PLANT AND MACHINERY(a), 1957-58.

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	15,061	6,569	2,667	3,611	1,898	817	30,623
II. Bricks, Pottery, Glass, etc.	7,345	3,005	859	866	1,180	188	13,443
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	54,290	51,435	1,867	6,176	21,325	2,427	137,520
IV. Industrial Metals, Machines, Conveyances	164,252	69,561	10,996	25,280	9,315	10,565	289,969
V. Precious Metals, Jewellery, Plate	574	588	43	120	55	8	1,388
VI. Textiles and Textile Goods (not Dress)	10,849	19,420	949	2,122	429	2,271	36,040
VII. Skins and Leather (not Clothing or Footwear)	1,693	1,407	391	513	201	35	4,240
VIII. Clothing (except Knitted)	5,759	6,850	1,253	953	566	240	15,621
IX. Food, Drink and Tobacco	36,150	38,525	37,682	9,038	6,019	4,294	131,708
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	8,652	5,237	5,072	3,347	2,335	2,400	27,043
XI. Furniture of Wood, Bedding, etc.	1,387	1,189	493	404	255	74	3,802
XII. Paper, Stationery, Printing, Bookbinding, etc.	19,131	20,925	6,337	2,982	1,705	8,429	59,509
XIII. Rubber	4,065	4,603	743	474	221	128	10,234
XIV. Musical Instruments	309	106	5	6	3	..	429
XV. Miscellaneous Products	4,507	5,246	161	362	103	38	10,417
<i>Total, Classes I. to XV.</i>	<i>334,024</i>	<i>234,666</i>	<i>69,518</i>	<i>56,254</i>	<i>45,610</i>	<i>31,914</i>	<i>771,986</i>
XVI. Heat, Light and Power	81,814	76,213	35,080	23,082	18,230	14,946	249,365
Grand Total	415,838	310,879	104,598	79,336	63,840	46,860	1,021,351

(a) Includes estimated value of rented plant and machinery.

4. *Depreciation of Land and Buildings and Plant and Machinery, 1957-58.*—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State as recorded by factory proprietors at the annual census of factory production:—

**FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS
AND PLANT AND MACHINERY, 1957-58.**

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,774	694	369	415	205	80	3,537
II. Bricks, Pottery, Glass, etc. ..	1,050	511	145	119	137	33	1,995
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	5,241	5,040	329	852	2,145	527	14,134
IV. Industrial Metals, Machines, Conveyances ..	15,913	7,213	1,171	3,085	844	920	29,146
V. Precious Metals, Jewellery, Plate ..	48	59	3	11	3	1	125
VI. Textiles and Textile Goods (not Dress) ..	1,281	2,580	95	156	59	251	4,422
VII. Skins and Leather (not Clothing or Footwear) ..	154	138	35	70	26	2	425
VIII. Clothing (except Knitted) ..	624	616	118	72	61	44	1,535
IX. Food, Drink and Tobacco ..	3,744	4,436	3,398	1,123	668	431	13,800
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	1,013	796	465	277	237	264	3,052
XI. Furniture of Wood, Bedding, etc. ..	152	113	49	42	24	6	386
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,925	2,825	630	323	202	821	6,726
XIII. Rubber ..	931	913	150	111	37	15	2,157
XIV. Musical Instruments ..	43	9	1	..	..	..	53
XV. Miscellaneous Products ..	627	753	17	37	11	3	1,448
<i>Total, Classes I. to XV.</i>	<i>34,520</i>	<i>26,696</i>	<i>6,975</i>	<i>6,693</i>	<i>4,659</i>	<i>3,398</i>	<i>82,941</i>
XVI. Heat, Light and Power ..	6,713	690	1,884	840	1,002	621	11,750
Grand Total ..	41,233	27,386	8,859	7,533	5,661	4,019	94,691

5. Land and Buildings, Plant and Machinery—Values, Additions and Replacements, Depreciation, 1938-39 and 1953-54 to 1957-58.—The following table summarizes the recorded totals for Australia in this section and also includes particulars of additions and replacements:—

**FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY,
AUSTRALIA.**

(£'000.)

Year.	Book Values as at 30th June.(a)		Additions and Replacements during year.(a)		Depreciation allowed during year.	
	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.
1938-39.. ..	130,920	143,662	5,578	17,781	1,911	8,736
1953-54.. ..	483,431	580,715	55,668	128,453	5,673	41,524
1954-55.. ..	555,996	698,292	58,311	170,762	6,568	49,916
1955-56.. ..	655,582	803,540	82,808	156,535	8,030	59,909
1956-57.. ..	761,995	923,954	87,441	195,670	9,196	69,902
1957-58.. ..	851,686	1,021,351	75,762	176,903	10,414	84,277

(a) Includes estimated value of rented premises, plant and machinery.

§ 10. Principal Factory Products.

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau and in the bulletin *Secondary Industries*.

The following table shows the total recorded production of some of the principal articles manufactured in Australia during the years ended 30th June, 1956 to 1958. A more complete list, together with values, where available, is published in the bulletin *Secondary Industries*.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA.

Article.	Unit of Quantity.	1955-56.	1956-57.	1957-58.
Acid—				
Nitric	Ton	14,216	15,520	14,837
Sulphuric	"	896,472	878,763	991,624
Aerated and Carbonated Water	'000 gals.	60,891	61,242	69,165
Asbestos Cement Building Sheets	'000 sq. yds.	26,679	25,444	26,026
Bacon and Ham	'000 lb.	75,641	71,156	71,671
Bags, Leather, Fibre, etc.—				
Handbags—				
Leather	No.	848,144	748,571	915,636
Plastic	"	800,217	922,068	1,011,201
Other	"	122,228	103,308	103,336
School Bags	"	101,505	98,358	80,961
Suitcases (a)	"	1,315,656	1,203,479	1,231,218
Trunks	"	1,204	1,256	1,288
All other (b)	"	292,042	321,685	522,961
Baking Powder	lb.	617,101	650,272	585,096
Bath Heaters—				
Electric	No.	17,076	14,698	12,415
Gas	"	27,560	25,243	26,234
Solid Fuel	"	40,532	33,691	31,581
Bathing Suits	Doz.	228,089	165,758	180,941
Baths, C.I.P.E.	No.	104,998	88,959	88,206
Batteries—Wet Cell Type—				
Auto (S.L.I.)— 6 Volts	No.			635,922
12 Volts	"			618,889
Radio, etc.	No. of 2 Volt Cells	Not collected in this dissection		236,501
Traction	"			32,591
Other	"			15,583
Beer (excluding Waste Beer)	'000 gals.	227,496	220,728	226,449
Biscuits	'000 lb.	158,554	162,536	165,529
Blankets	'000	1,657	1,678	1,855
Boots, Shoes and Slippers (not Rubber)—				
Boots and Shoes	'000 pairs	18,006	19,007	19,062
Sandals	"	1,809	1,932	2,334
Slippers	"	7,977	8,214	9,153
Bran (Wheaten)	Ton (2,000 lb.)	277,638	281,915	232,578
Brassieres	Doz.	421,142	423,441	477,600
Bricks, Clay	'000	840,343	805,069	877,905
Brooms	Gross	19,862	21,003	21,413
Brushes (c)	"	87,594	78,753	99,565
Butter	Ton	205,791	189,841	172,918
Candles	Cwt.	10,011	10,354	7,444
Cardigans, Sweaters, etc.	Doz.	1,051,285	1,148,779	1,256,668
Cement, Portland	Ton	2,034,554	2,172,518	2,291,043
Cheese	"	38,681	45,171	35,895
Cigarettes	'000 lb.	27,162	30,513	32,748
Cleansing and Scouring Powders—				
Soap based (Incl. Sand Soap)	Cwt.	82,682	78,168	72,586
Other	"	72,230	101,184	127,127
Cloth—				
Cotton	'000 sq. yds.	40,151	46,564	44,261
Woollen and Worsted (d)	"	30,279	32,782	32,119
Coke—				
Metallurgical	Ton	2,058,426	2,234,458	2,295,737
Other	"	1,031,135	954,756	821,615
Confectionery—				
Chocolate	'000 lb.	62,405	68,810	63,796
Other	"	83,069	87,395	88,881
Coppers—				
Electric	No.	27,075	21,890	20,943
Gas	"	27,480	24,170	22,072
Inserts (all types)	"	68,827	50,653	41,849
Cordials and Syrups	'000 gals.	4,677	4,623	4,619
Corsets and Corselets	Doz.	156,837	145,414	177,652

(a) Includes kitbags, metal and bristle brushes.

(b) Excludes canvas waterbags.
(d) Includes mixtures.

(c) Excludes tooth and industrial

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—continued.

Article.	Unit of Quantity.	1955-56.	1956-57.	1957-58.
Cosmetic Creams and Lotions—				
Face Creams	Cwt.	4,706	4,488	4,438
Hand Creams and Lotions	"	7,141	8,939	8,473
Other Skin Creams and Lotions	"	6,066	6,865	6,817
Custard Powder	'000 lb.	5,942	5,647	5,395
Cycles, Assembled	No.	89,033	74,734	77,040
Dynos—				
Alternators	No.	289	389	443
Generators	"	6,394	6,585	5,704
Electricity	Mill. kWh	16,675	18,289	19,796
Engines—				
Diesel, other than Marine	No.	2,757	2,642	2,556
Petrol—				
Marine	"	1,246	1,780	3,130
Other (a)	"	100,585	180,509	186,325
Essences, Flavouring—				
Culinary	Gal.	118,642	120,714	128,264
Industrial	"	319,591	345,999	329,935
Face Powder	Cwt.	2,694	2,721	2,653
Fans, Electric	No.	127,659	139,819	75,193
Fats, Edible—				
Dripping	Cwt.	383,385	440,292	373,866
Other	"	369,712	392,169	441,038
Fibrous Plaster Sheets	'000 sq. yds.	18,125	16,257	17,439
Fish, Tinned (including Fish Loaf)	'000 lb.	6,008	8,268	7,856
Floorboards—				
Australian Timber	'000 super. ft.	118,502	124,656	127,751
Imported Timber	"	2,973	2,657	3,441
Flour, Self-raising	Cwt.	1,090,005	1,084,974	1,067,819
Flour, Wheaten (b)	Ton (2,000 lb.)	1,571,305	1,622,343	1,375,719
Fruit Juices—Natural	'000 gals.	3,016	3,298	3,670
Gas	Mill. cubic ft.	44,578	46,653	47,655
Gloves—				
Dress—				
Leather	Doz. pairs.	4,115	4,111	3,020
Other	"	52,035	70,654	77,104
Work, all types	"	293,874	276,707	290,384
Golf Clubs	Doz.	12,781	12,443	13,365
Handkerchiefs—				
Men's	"	1,181,261	1,118,023	1,204,828
Women's	"	1,264,711	1,489,780	1,569,810
Hats and Caps (excluding Berets)	"	460,464	478,804	515,444
Hose, Rubber—Garden	'000 lin. ft.	3,131	3,755	2,736
Other	"	9,449	9,654	10,007
Plastic—Garden	"	25,475	27,585	32,565
Ice	Ton	601,027	485,511	462,569
Ice Cream	'000 gals.	16,018	15,647	16,519
Iron and Steel—				
Pig Iron	'000 tons.	1,911	2,098	2,284
Steel Ingots	"	2,320	2,774	3,038
Blooms and Billets	"	2,111	2,288	2,492
Irons, Electric (Hand, Domestic)	No.	327,536	354,099	320,013
Jams	'000 lb.	84,096	92,208	107,773
Jelly Crystals	"	12,793	12,332	13,887
Lacquer, Clear and Colours	Gal.	1,498,695	1,451,292	1,559,372
Lard	Cwt.	42,446	42,762	51,795
Lawn Mowers—				
Electric	No.	18,861	1,494	2,781
Petrol	"	77,929	161,256	147,253
Hand	"	106,712	48,713	31,300
Leather—				
Dressed from Hides—Sold by Measurement	'000 sq. ft.	55,125	56,611	60,379
Sold by Weight	'000 lb.	132	162	185
Dressed from Skins	'000 sq. ft.	23,442	21,448	21,831
Harness, Skirt, Belting, etc.	'000 lb.	2,553	2,553	2,205
Sole	"	34,914	30,583	29,085
Upholstery	'000 sq.ft.	3,389	1,434	900

(a) Excludes motor car, motor cycle, tractor and aero engines.

(b) Includes wheatmeal for baking and sharps.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—*continued*.

Article.	Unit of Quantity.	1955-56.	1956-57.	1957-58.
Lime—Agricultural	Ton	123,338	120,298	125,290
Hydrated	"	54,172	52,843	53,025
Quick	"	117,578	109,667	116,019
Linseed Oil—extracted from Local Crushing	'000 gals.	1,448	1,645	889
from treatment of Unrefined	"	2,631	2,326	2,635
Lubricating Oil	tons	52,268	49,755	66,669
Malt, Barley	'000 bus.	7,782	7,895	8,197
Margarine—				
Table	'000 lb.	26,552	38,632	36,033
Other	"	43,443	44,576	47,017
Mattresses—Wire	No.	311,518	298,212	330,538
Inner Spring	"	501,106	507,844	568,900
Soft Filled, etc.	"	362,937	337,017	297,778
Meat, Tinned	'000 lb.	157,969	154,731	187,268
Milk—				
Concentrated (Whole)	"	31,038	33,924	27,863
Condensed	"	99,368	111,329	105,594
Powdered (Whole) (a)	"	67,361	70,405	71,792
Mops, Floor	Gross	13,768	11,929	12,558
Motor Bodies made	No.	129,700	120,781	160,675
Motor Bodies Assembled	"	94,676	77,548	81,630
Motor Spirit (including Benzol)	'000 gals.	617,356	833,927	945,724
Motors, Electric	No.	1,116,840	954,318	1,127,482
Nails	Ton	25,058	26,340	24,191
Neckties	Doz.	516,835	532,868	489,213
Newsprint	Ton	79,015	79,600	81,085
Oatmeal (including Rolled Oats)	Cwt.	365,980	402,782	430,822
Paint—Oil (including Enamels)	'000 gals.	10,679	10,873	11,090
Water (including Kalsomine)	'000 lb.	26,306	25,920	(b) 3,916
Peanut Butter and Paste	"	4,736	4,346	5,433
Perambulators	No.	160,374	149,596	156,657
Pickles	'000 pints	5,711	6,469	5,503
Pigments—Tinting Colours ground in oil	Gal.	(c) 165,300	(c) 162,953	27,118
Zinc Oxide	Cwt.	369,613	398,592	158,261
White Lead	"	369,613	398,592	376,585
Other, including Dry Colours	"	369,613	398,592	376,585
Plywood, $\frac{1}{8}$ inch basis	'000 sq. ft.	200,699	194,365	212,876
Pollard	Ton (2,000 lb.)	332,564	351,549	290,160
Preserves—				
Fruit Preserved (d)	'000 lb.	304,299	289,510	349,411
Vegetables Preserved	"	77,822	98,418	87,044
Pyjamas—				
Men's and Boys' (Suits only)	Doz.	279,734	283,055	328,018
Women's and Girls' (inc. Nightdresses)	"	359,780	399,995	460,441
Racquet Frames (all types)	"	16,651	16,147	17,616
Refrigerators—Commercial	No.	1,756	1,025	811
Domestic	"	247,360	195,517	195,925
Rice (Cleaned)	Cwt.	1,166,027	897,030	1,117,786
Ropes and Cables (excluding Wire)	"	128,873	131,746	130,413
Rugs	'000	142	163	177
Sauce	'000 pints	28,668	33,494	29,328
Sausage Casings	Cwt.	80,769	95,218	78,374
Semolina	"	129,536	140,536	130,179
Shirts (Men's and Boys')	Doz.	1,309,501	1,425,312	1,530,310
Sink Heaters	No.	24,842	23,635	19,356
Soap and Detergents—				
Soap—Personal Toilet	Cwt.	327,949	320,846	372,680
Household	"	744,109	716,568	766,130
Industrial (Incl. Wool Scouring) (e)	"	197,590	194,476	172,986
Extracts and Powders—Household	"	822,988	791,267	787,961
Industrial	"	87,455	75,694	87,998
Detergents—Personal Toilet	"	6,000	8,763	9,101
Household	"	91,901	114,510	146,847
Industrial	"	22,499	34,460	35,797
Extracts and Powders—				
Household	"	34,698	78,089	183,218
Industrial	"	39,131	45,558	48,846

(a) Includes malted milk and infants' and invalids' foods. (b) Water paint in powder form only, including Kalsomine. Excludes production of emulsion types which was 1,801,000 gallons. (c) Not recorded. (d) Includes canned apple, all types. (e) Includes industrial flaxes and chips.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—continued.

Article.	Unit of Quantity.	1955-56.	1956-57.	1957-58.
Socks and Stockings—				
Men's and Youths'	'000 Doz. pairs	1,396	1,454	1,472
Women's and Maids'	"	2,304	2,570	2,218
Infants' and Babywear (including Anklets)	"	1,227	1,191	1,125
Soup—Tinned	'000 pints	35,316	44,538	27,346
Dry-Mix	'000 lb.	3,771	4,532	3,606
Spades and Shovels	Doz.	33,874	33,255	23,796
Starch—Edible	Cwt.	391,766	468,308	443,894
Inedible	"	96,929	124,895	140,891
Steel, Structural, Fabricated	Ton	217,124	240,491	226,653
Stoves, Ovens and Ranges—				
Domestic Cooking—				
Electric (a)	No.	92,258	99,525	92,413
Gas	"	58,080	54,966	56,300
Solid Fuel	"	47,300	46,005	43,229
Sugar—Raw (94 net titre)	Ton	1,171,713	1,207,797	1,293,125
Refined	"	482,660	480,393	493,093
Sulphate of Ammonia	"	75,321	110,898	118,732
Superphosphate	"	2,125,803	1,975,015	2,219,592
Talcum Powder	Cwt.	35,824	35,084	36,708
Tallow—				
Edible	"	533,128	584,242	620,290
Inedible	"	1,465,502	1,655,807	1,735,372
Television Sets (b)	No.	2,636	121,232	282,430
Tiles, Roofing—				
Cement	'000	53,782	44,595	49,468
Terracotta	"	64,746	57,673	58,935
Timber—				
From Native Logs—				
Hardwood	'000 super. ft.	1,180,936	1,151,429	1,127,150
Softwood	"	268,785	267,431	264,027
From Imported Logs—				
Hardwood	"	27,894	26,853	28,634
Softwood	"	173,549	174,531	167,984
Toasters, Electric (Domestic)	No.	18,836	18,917	18,192
Tobacco	'000 lb.	1,208,758	1,508,439	1,407,645
Tomato Juice	Gal.	767,751	740,344	807,227
Towels	Doz.			
Transformers, Chokes and Ballasts—				
For distribution of Power and Light, etc.	Number	Not collected in this dissection		51,333
For Fluorescent Lights and Neon Signs ..	"			1,306,566
For Radio Receivers, Record Players, etc.	"			250,052
For Television Receivers	"			241,900
For Welders	"			2,761
For other purposes	"			50,918
Twine (all types)	Cwt.	133,694	131,424	121,405
Tyres, Pneumatic—				
Motor Car and Motor Cycle	No.	2,907,492	2,711,087	3,003,646
Truck and Omnibus	"	544,807	536,384	502,725
All Other (excl. Bicycle)	"	184,273	190,577	295,189
Umbrellas	'000 doz.	570,156	622,554	470,953
Underwear	"	4,460	4,687	4,740
Vacuum Cleaners (Domestic)	No.	55,674	83,910	81,257
Washing Machines, Household, Electric	No.	165,558	144,422	164,100
Weatherboards—				
Australian Timber	'000 super. ft.	23,910	22,937	24,992
Imported Timber	"	2,150	1,759	4,083
Wheatmeal (c)	Ton (2,000 lb.)	110,635	123,854	123,050
Wheelbarrows (Metal)	No.	73,031	66,999	63,403
Wireless and Television Cabinets	No.	383,139	429,647	557,842
Wireless Receiving Sets (incl. Radiograms)	"	458,012	366,282	380,753
Wool Scoured—				
For Sale	'000 lb.	38,921	43,632	47,663
For use in own works	"	40,875	47,625	36,866
On Commission	"	65,025	74,506	69,433
Wool Tops	"	35,640	42,661	39,253
Yarn (d)				
Cotton	"	40,543	41,981	44,645
Woollen	"	20,033	22,884	24,152
Worsted	"	23,180	24,818	21,455

Zinc Oxide (See Pigments)

(a) Includes stoves, cookers, etc. (b) Production commenced late in 1955-56. Number produced in 1958-59 was 318,899. (c) Excludes wheatmeal for baking included with flour. (d) Including mixtures predominantly of the fibre mentioned.

§ 11. Individual Industries.

1. **General.**—Particulars on pages 154–181, §§ 2–9 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour and capital or for other features of special interest. Where there are only one or two establishments in a particular industry in the State or the Commonwealth, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

The statistics in the following tables should be read in the light of the following definitions.

Factory. A factory is taken to be a manufacturing establishment in which four or more persons are employed or in which power, other than manual, is used.

Average Number of Persons Employed. All persons employed in the manufacturing activities of a factory are counted as factory employees, including working proprietors and “out-workers”. The average number of persons employed means, in general, the average number over the whole year and not the average over the period worked.

Value of Materials Used. This item includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of Fuel, etc., Used. This item includes also the cost of power and light used, of lubricants and of water.

Value of Output. The amounts given under this heading represent the selling value, at the factory, of goods made or processed during the year, including by-products, also the value of other work done.

Value of Production. The value of production is obtained by deducting “Value of materials used” and “Value of fuel used”, as defined above, from the “Value of output”.

Rated Horse-power of Engines Used. Statistics of power used in factories other than Central Electric Stations relate to the “rated horse-power” of engines ordinarily in use.

For more detailed definitions see § 1, para. 6 of this chapter, page 150.

Details of some of the principal articles produced in factories in Australia during the years 1955–56 to 1957–58 are shown in the table on the preceding pages (§ 10).

2. **Portland Cement and Cement Goods.**—The manufacture of portland cement and cement goods is an important industry included in Class I. Particulars for the three industries under this general heading are shown for 1957–58 and for a series of years in the following table:—

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS.

AUSTRALIA, 1957–58.

Items.	Portland Cement.	Asbestos Cement Sheets and Mouldings.	Other Cement Goods.	Total.
Number of factories	14	13	454	481
Number of persons employed	3,119	2,403	5,472	10,994
Salaries and wages paid £'000	3,210	2,488	5,166	10,864
Value of power, fuel, etc., used £'000	4,601	287	236	5,124
Value of materials used £'000	6,882	5,352	13,345	25,579
Value of production £'000	8,804	4,363	9,954	23,121
Total value of output £'000	20,287	10,002	23,535	53,824
Value of land and buildings £'000	3,378	1,191	2,838	7,407
Value of plant and machinery £'000	14,150	1,776	3,897	19,823
Horse-power of engines ordinarily in use h.p.	79,000	11,041	16,864	106,905

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS—*continued.*

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	132	479	480	489	479	481
Number of persons employed ..	3,932	9,304	10,444	11,167	10,688	10,994
Salaries and wages paid .. £'000	897	7,435	8,704	10,044	10,312	10,864
Value of power, fuel, etc., used .. £'000	562	3,950	4,445	4,792	5,119	5,124
Value of materials used .. £'000	1,542	16,013	19,418	21,999	23,226	25,579
Value of production .. £'000	2,385	14,198	17,009	19,460	21,228	23,121
Total value of output .. £'000	4,489	34,161	40,872	46,251	49,573	53,824
Value of land and buildings .. £'000	1,350	4,206	4,726	6,128	6,994	7,407
Value of plant and machinery .. £'000	2,516	10,796	13,208	15,542	18,454	19,823
Horse-power of engines ordinarily in use h.p.	39,617	89,260	95,870	108,715	105,805	106,905

3. Chemicals, Drugs and Medicines.—In 1945-46, the classification of factories was amended to provide for the separate tabulation of factories engaged in the production of Industrial and Heavy Chemicals and Acids and those engaged in producing Pharmaceutical and Toilet Preparations, which previously had been combined. Details for each of these industries are given in the next two tables for 1957-58 with comparable figures for previous years. However, it should be noted that, in order to avoid the publication of confidential information, particulars relating to Industrial and Heavy Chemicals include details for the Explosives industry.

INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES).

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	149	86	19	14	11	2	281
Number of persons employed ..	6,905	6,640	305	914	(a)	(a)	15,085
Salaries and wages paid .. £'000	7,690	6,724	277	909	(a)	(a)	15,875
Value of power, fuel, etc., used .. £'000	2,382	1,065	80	569	(a)	(a)	4,208
Value of materials used .. £'000	24,180	16,853	579	1,320	(a)	(a)	43,497
Value of production .. £'000	19,377	12,661	683	2,639	(a)	(a)	35,930
Total value of output .. £'000	45,939	30,579	1,342	4,528	(a)	(a)	83,635
Value of land and buildings .. £'000	9,968	9,675	236	839	(a)	(a)	21,055
Value of plant and machinery .. £'000	19,389	13,992	218	1,808	(a)	(a)	36,157
Horse-power of engines ordinarily in use h.p.	57,714	53,385	1,838	5,321	(a)	(a)	121,393

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	165	234	248	258	270	281
Number of persons employed ..	10,228	11,765	13,032	14,107	14,509	15,085
Salaries and wages paid .. £'000	3,450	9,907	11,833	13,574	14,684	15,875
Value of power, fuel, etc., used .. £'000	618	2,757	3,043	3,462	3,845	4,208
Value of materials used .. £'000	6,007	25,158	29,004	33,506	38,335	43,497
Value of production .. £'000	6,627	20,643	25,095	29,895	34,513	35,930
Total value of output .. £'000	13,252	48,558	57,142	66,863	76,693	83,635
Value of land and buildings .. £'000	11,697	13,389	14,190	15,987	17,831	21,055
Value of plant and machinery .. £'000	10,964	23,573	25,607	27,125	29,190	36,157
Horse-power of engines ordinarily in use h.p.	69,399	90,807	95,188	101,527	107,787	121,393

PHARMACEUTICAL AND TOILET PREPARATIONS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	129	59	6	13	4	1	212
Number of persons employed ..	3,498	2,655	114	489	(a)	(a)	6,834
Salaries and wages paid .. £'000	2,692	2,376	67	347	(a)	(a)	5,531
Value of power, fuel, etc., used .. £'000	107	241	1	33	(a)	(a)	386
Value of materials used .. £'000	9,521	6,499	280	1,805	(a)	(a)	18,226
Value of production .. £'000	14,721	9,945	143	893	(a)	(a)	21,856
Total value of output .. £'000	24,349	12,685	424	2,731	(a)	(a)	40,468
Value of land and buildings .. £'000	3,984	5,224	62	295	(a)	(a)	9,677
Value of plant and machinery .. £'000	1,369	1,706	20	138	(a)	(a)	3,262
Horse-power of engines ordinarily in use .. h.p.	4,514	8,738	83	1,489	(a)	(a)	14,962

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	215	208	210	206	206	212
Number of persons employed ..	5,514	6,012	6,233	6,400	6,446	6,834
Salaries and wages paid .. £'000	1,699	3,898	4,255	4,635	5,020	5,531
Value of power, fuel, etc., used .. £'000	57	238	223	259	312	386
Value of materials used .. £'000	5,402	12,017	12,729	13,565	15,292	18,226
Value of production .. £'000	4,790	12,969	14,380	15,279	17,312	21,856
Total value of output .. £'000	10,249	25,224	27,332	29,103	32,916	40,468
Value of land and buildings .. £'000	1,534	4,755	6,022	6,830	7,828	9,677
Value of plant and machinery .. £'000	598	1,793	2,129	2,686	2,746	3,262
Horse-power of engines ordinarily in use .. h.p.	6,324	12,777	13,592	14,301	16,666	14,962

4. White Lead, Paints and Varnish.—The following table shows particulars of this industry for each State during 1957-58 and for Australia for a series of years:—

WHITE LEAD, PAINTS AND VARNISH.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	85	52	18	15	11	3	184
Number of persons employed ..	3,029	1,724	327	539	(a)	(a)	5,749
Salaries and wages paid .. £'000	3,042	1,710	264	480	(a)	(a)	5,608
Value of power, fuel, etc., used .. £'000	297	100	16	26	(a)	(a)	445
Value of materials used .. £'000	12,682	7,197	1,610	2,412	(a)	(a)	24,619
Value of production .. £'000	7,171	3,282	1,186	1,826	(a)	(a)	13,853
Total value of output .. £'000	20,150	10,579	2,812	4,264	(a)	(a)	38,917
Value of land and buildings .. £'000	2,610	2,476	332	685	(a)	(a)	6,397
Value of plant and machinery .. £'000	1,392	1,934	147	439	(a)	(a)	3,986
Horse-power of engines ordinarily in use .. h.p.	13,368	7,643	1,510	2,081	(a)	(a)	25,443

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	102	174	175	178	186	184
Number of persons employed ..	2,271	4,934	5,322	5,804	5,815	5,749
Salaries and wages paid .. £'000	535	3,757	4,636	5,300	5,508	5,608
Value of power, fuel, etc., used .. £'000	45	337	376	384	400	445
Value of materials used .. £'000	2,275	18,603	21,553	23,504	23,916	24,619
Value of production .. £'000	1,585	9,891	11,980	12,874	13,567	13,853
Total value of output .. £'000	3,905	28,831	33,909	36,762	37,883	38,917
Value of land and buildings .. £'000	761	4,066	5,089	5,563	6,680	6,397
Value of plant and machinery .. £'000	324	2,230	2,892	3,261	3,408	3,986
Horse-power of engines ordinarily in use .. h.p.	7,696	22,719	24,178	25,050	26,969	25,443

5. Soap and Candle Factories.—The following table shows particulars of factories in the Soap and Candle industry in each State for 1957–58 and for Australia for a series of years:—

SOAP AND CANDLES.

1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	45	25	9	6	3	2	90
Number of persons employed ..	1,791	762	256	83	(a)	(a)	2,983
Salaries and wages paid .. £'000	1,669	822	202	66	(a)	(a)	2,830
Value of power, fuel, etc., used .. £'000	197	205	21	10	(a)	(a)	441
Value of materials used .. £'000	7,776	5,330	785	214	(a)	(a)	14,446
Value of production .. £'000	6,997	2,908	445	77	(a)	(a)	10,525
Total value of output .. £'000	14,970	8,443	1,251	301	(a)	(a)	25,412
Value of land and buildings .. £'000	745	823	157	78	(a)	(a)	1,871
Value of plant and machinery .. £'000	1,160	1,488	190	58	(a)	(a)	2,973
Horse-power of engines ordinarily in use .. h.p.	5,568	3,806	981	615	(a)	(a)	11,296

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories ..	65	89	91	92	87	90
Number of persons employed ..	2,620	3,058	2,962	3,167	2,932	2,983
Salaries and wages paid .. £'000	501	2,544	2,589	2,858	2,704	2,830
Value of power, fuel, etc. used .. £'000	76	427	420	406	393	441
Value of materials used .. £'000	1,568	10,214	11,941	12,057	12,437	14,446
Value of production .. £'000	1,886	6,732	7,425	8,147	9,150	10,525
Total value of output .. £'000	3,530	17,373	19,786	20,610	21,980	25,412
Value of land and buildings .. £'000	666	1,565	1,619	1,743	1,784	1,871
Value of plant and machinery .. £'000	577	2,244	2,653	3,001	3,150	2,973
Horse-power of engines ordinarily in use .. h.p.	5,267	8,795	8,676	10,711	10,922	11,296
Materials used—						
Tallow .. cwt.	535,511	1,120,828	1,151,146	1,162,578	1,152,865	1,219,538
Alkali for Soap (a) ..	194,869	377,451	421,401	390,757	366,796	386,712
Coconut oil—refined and unrefined .. cwt.	138,954	86,576	93,498	83,346	80,395	94,952
Articles produced—						
Soap (excl. Sand Soap) ..	908,797	1,225,183	1,263,226	1,269,648	1,231,890	1,311,796
Cleansers and Scourers (inc. Sand Soap) .. cwt.	123,702	121,232	115,530	105,046	78,186	72,586
Soap Extracts and Powders ..	191,232	890,241	1,007,494	910,443	866,961	875,959
Candles made ..	28,649	8,611	10,369	10,011	10,354	7,444

(a) Includes Soda Ash.

NOTE.—Preliminary figures of production in 1958–59 were Soap, 1,243,000 cwt.; Cleansers and Scourers, 63,000 cwt.; and Soap Extracts and Powders, 802,000 cwt.

6. Chemical Fertilizers.—The following table shows particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1957–58 and for Australia for a series of years. Details of the consumption, imports and exports of fertilizers will be found in Chapter XXII.—Agricultural Production.

CHEMICAL FERTILIZERS.

1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	12	8	8	8	6	7	49
Number of persons employed ..	816	1,610	(a)	895	1,004	(a)	5,050
Salaries and wages paid .. £'000	842	1,739	(a)	937	1,008	(a)	5,309
Value of power, fuel, etc., used .. £'000	229	284	(a)	81	165	(a)	950
Value of materials used .. £'000	3,836	8,470	(a)	6,048	6,413	(a)	28,862
Value of production .. £'000	1,942	3,856	(a)	1,870	2,211	(a)	12,175
Total value of output .. £'000	6,007	12,610	(a)	7,999	8,789	(a)	41,987
Value of land and buildings .. £'000	3,078	9,450	(a)	729	1,876	(a)	7,583
Value of plant and machinery .. £'000	2,546	1,387	(a)	3,371	1,883	(a)	10,835
Horse-power of engines ordinarily in use .. h.p.	15,170	14,481	(a)	9,846	8,050	(a)	58,212

(a) Not available for publication; figures are included in the total for Australia.

CHEMICAL FERTILIZERS—continued.

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	36	51	53	54	52	49
Number of persons employed	2,540	4,531	4,735	4,911	5,074	5,050
Salaries and wages paid £'000	601	3,988	4,372	4,809	5,069	5,309
Value of power, fuel, etc., used £'000	114	842	852	939	1,160	950
Value of materials used £'000	3,231	20,521	21,519	24,098	25,479	28,862
Value of production £'000	1,600	8,109	8,794	10,267	10,158	12,175
Total value of output £'000	4,945	29,472	31,165	35,304	36,797	41,987
Value of land and buildings £'000	1,449	6,067	6,512	7,033	7,341	7,583
Value of plant and machinery £'000	2,353	8,067	9,270	11,645	11,404	10,835
Horse-power of engines ordinarily in use h.p.	18,165	41,644	47,595	58,044	59,457	58,212

7. *Iron and Steel Works and Engineering.*—(i) *General.* In 1945-46, the classification of factories was amended to provide for the tabulation in four separate groups of those industries previously included under Iron and Steel, and Engineering. The first group (Smelting, Converting, Refining and Rolling of Iron and Steel) covers blast furnaces, steel works and rolling mills. The second group, Foundries (Ferrous), covers those engaged in the founding of iron and steel. The third group (Plant, Equipment and Machinery including Machine Tools) covers those industries engaged in the production of boilers, engines, machines and machinery, machine tools, structural steel fabrications, steel furniture, etc. The fourth group (Other Engineering) includes jobbing and general engineers, not elsewhere included. Detailed statistics for the four groups mentioned are shown in the following tables.

(ii) *Smelting, Converting, Refining and Rolling of Iron and Steel.* In the following table, particulars are shown for each State for 1957-58 and for Australia in selected years for the group Smelting, Converting, Refining and Rolling of Iron and Steel:—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of factories	17	11	..	5	2	..	35
Number of persons employed	26,622	1,345	..	(a)	(a)	..	28,526
Salaries and wages paid £'000	29,513	1,396	..	(a)	(a)	..	31,469
Value of power, fuel, etc., used £'000	19,423	313	..	(a)	(a)	..	22,150
Value of materials used £'000	134,882	1,189	..	(a)	(a)	..	137,674
Value of production £'000	66,289	1,859	..	(a)	(a)	..	70,379
Total value of output £'000	220,594	3,361	..	(a)	(a)	..	230,203
Value of land and buildings £'000	9,341	280	..	(a)	(a)	..	9,953
Value of plant and machinery £'000	67,454	374	..	(a)	(a)	..	71,048
Horse-power of engines ordinarily in use h.p.	511,733	8,259	..	(a)	(a)	..	536,530

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	27	33	33	(b) 28	34	35
Number of persons employed	10,413	16,688	17,842	20,805	26,078	28,526
Salaries and wages paid £'000	4,164	15,609	18,238	22,037	28,636	31,469
Value of power, fuel, etc., used £'000	2,777	15,430	15,670	17,864	20,538	22,150
Value of materials used £'000	19,134	88,802	94,928	101,416	136,483	137,674
Value of production £'000	7,393	27,995	34,381	44,269	66,385	70,379
Total value of output £'000	29,304	132,227	144,979	163,549	223,406	230,203
Value of land and buildings £'000	2,197	6,508	6,615	6,457	9,054	9,953
Value of plant and machinery £'000	5,669	24,279	26,394	29,154	61,608	71,048
Horse-power of engines ordinarily in use h.p.	198,317	287,618	339,135	363,751	448,541	536,530

(a) Not available for publication; figures are included in the total for Australia. (b) The reduction in the number of establishments is due to combined returns being furnished where formerly separate returns were submitted for Blast Furnaces, Steel Furnaces and Rolling Mills operated by the one establishment.

Particulars of the production of pig-iron and steel will be found on page 183 and in Chapter XXVII.—Mineral Industry.

(iii) *Foundries (Ferrous)*. Particulars covering those industries classified as founding of iron and steel are shown for each State for 1957-58 and for Australia in selected years in the following table:—

FOUNDRIES—FERROUS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	85	224	23	23	18	..	373
Number of persons employed ..	2,855	3,073	840	503	530	..	7,801
Salaries and wages paid .. £'000	2,799	3,047	790	465	447	..	7,548
Value of power, fuel, etc., used .. £'000	352	393	55	77	120	..	997
Value of materials used £'000	2,100	3,091	701	390	382	..	6,664
Value of production £'000	4,002	4,530	1,271	688	746	..	11,237
Total value of output £'000	6,454	8,014	2,027	1,155	1,248	..	18,898
Value of land and buildings .. £'000	1,359	2,030	517	186	152	..	4,244
Value of plant and machinery .. £'000	1,007	1,715	534	164	195	..	3,615
Horse-power of engines ordinarily in use h.p.	11,170	13,151	3,450	2,380	2,891	..	33,042

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	312	357	368	373	368	373
Number of persons employed ..	5,344	6,611	7,099	7,434	7,633	7,801
Salaries and wages paid £'000	1,612	5,129	6,116	6,706	7,060	7,548
Value of power, fuel, etc., used .. £'000	161	702	796	918	975	997
Value of materials used £'000	1,210	4,057	4,881	5,396	6,221	6,664
Value of production £'000	2,341	7,469	8,983	9,652	10,235	11,237
Total value of output £'000	3,712	12,228	14,660	15,966	17,431	18,898
Value of land and buildings £'000	988	2,299	2,623	3,564	3,899	4,244
Value of plant and machinery .. £'000	619	2,123	2,342	3,234	3,545	3,615
Horse-power of engines ordinarily in use h.p.	13,381	25,415	26,451	30,738	32,835	33,042

(iv) *Plant, Equipment and Machinery (including Machine Tools)*. The next table shows particulars for this group for each State during 1957-58 and for Australia in selected years:—

PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS).

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	1,097	686	155	192	101	9	2,240
Number of persons employed ..	27,273	24,431	6,482	7,928	3,171	235	69,540
Salaries and wages paid £'000	27,381	24,036	5,343	7,317	2,692	231	67,000
Value of power, fuel, etc., used .. £'000	1,094	1,034	242	439	130	5	2,964
Value of materials used £'000	50,364	40,266	7,308	12,479	3,954	345	114,716
Value of production £'000	46,033	40,139	8,353	11,556	4,000	284	110,365
Total value of output £'000	97,491	81,459	15,903	24,474	8,084	634	228,045
Value of land and buildings £'000	18,834	17,698	2,400	4,151	2,243	266	45,592
Value of plant and machinery .. £'000	12,535	12,779	1,946	3,714	1,630	201	32,805
Horse-power of engines ordinarily in use h.p.	93,748	82,291	18,806	29,324	11,414	647	236,230

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	1,038	1,911	1,980	2,062	2,212	2,240
Number of persons employed ..	46,123	60,840	64,588	68,699	69,476	69,540
Salaries and wages paid £'000	14,259	47,620	54,561	61,872	65,272	67,000
Value of power, fuel, etc., used .. £'000	605	2,219	2,378	2,570	2,775	2,964
Value of materials used £'000	16,455	68,288	80,462	93,510	99,172	114,716
Value of production £'000	21,044	75,997	87,040	98,574	106,922	110,365
Total value of output £'000	38,104	146,504	169,880	194,654	208,869	228,045
Value of land and buildings £'000	7,227	25,259	28,687	34,019	39,692	45,592
Value of plant and machinery .. £'000	7,046	21,335	23,548	26,261	29,112	32,805
Horse-power of engines ordinarily in use h.p.	101,810	198,300	201,626	217,880	222,937	236,230

(v) *Other Engineering.* Details covering jobbing and general engineering works not elsewhere included are shown for each State for 1957-58 and for Australia in selected years in the following table:—

OTHER ENGINEERING.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	795	830	164	184	151	99	2,223
Number of persons employed ..	6,805	8,607	1,736	3,698	905	1,619	23,370
Salaries and wages paid .. £'000	6,089	7,911	1,357	3,318	668	1,425	20,768
Value of power, fuel, etc., used £'000	214	254	40	102	36	53	699
Value of materials used .. £'000	6,848	8,697	1,781	4,002	820	1,632	23,780
Value of production .. £'000	10,430	13,698	2,190	4,635	1,130	2,191	34,274
Total value of output .. £'000	17,492	22,649	4,011	8,739	1,986	3,876	58,753
Value of land and buildings £'000	4,989	5,865	844	2,283	568	936	15,485
Value of plant and machinery £'000	3,083	4,617	655	1,479	315	597	10,746
Horse-power of engines ordinarily in use h.p.	20,373	28,144	4,855	13,482	3,692	5,954	76,500

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	963	2,041	2,128	2,220	2,166	2,223
Number of persons employed ..	13,112	20,981	22,540	24,445	23,148	23,370
Salaries and wages paid .. £'000	6,089	15,100	17,491	20,477	20,037	20,768
Value of power, fuel, etc., used .. £'000	162	530	599	698	674	699
Value of materials used .. £'000	3,599	16,427	20,834	24,534	22,320	23,780
Value of production .. £'000	5,432	23,755	28,025	32,949	31,568	34,274
Total value of output .. £'000	9,193	40,712	49,458	58,181	54,562	58,753
Value of land and buildings .. £'000	2,369	9,900	11,289	13,205	13,801	15,485
Value of plant and machinery .. £'000	2,091	7,044	8,070	9,363	9,440	10,746
Horse-power of engines ordinarily in use h.p.	26,095	62,774	66,406	78,246	72,254	76,500

8. *Extracting and Refining of Non-ferrous Metals; Alloys.*—The following table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore, for each State during 1957-58 and for Australia for a series of years. It should be noted that as Ore Beneficiation and Concentration, formerly included as part of this section of Manufacturing Industry, was transferred to the Mining Industry in 1952-53 details for 1938-39 are not comparable with those for later years.

EXTRACTING AND REFINING OF NON-FERROUS METALS: ALLOYS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aust.
Number of factories	28	24	5	2	1	3	63
Number of persons employed ..	1,291	306	600	(b)	(b)	(b)	7,254
Salaries and wages paid .. £'000	1,480	328	742	(b)	(b)	(b)	8,667
Value of power, fuel, etc., used £'000	533	45	726	(b)	(b)	(b)	4,413
Value of materials used .. £'000	12,968	2,886	14,932	(b)	(b)	(b)	58,120
Value of production .. £'000	3,350	809	1,384	(b)	(b)	(b)	18,138
Total value of output .. £'000	16,851	3,740	17,042	(b)	(b)	(b)	80,671
Value of land and buildings £'000	874	371	989	(b)	(b)	(b)	6,907
Value of plant and machinery £'000	1,955	236	1,373	(b)	(b)	(b)	15,262
Horse-power of engines ordinarily in use h.p.	10,943	1,018	7,874	(b)	(b)	(b)	76,070

AUSTRALIA.

Items.	1938-39. (c)	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	42	59	62	56	58	63
Number of persons employed ..	5,532	6,592	6,782	7,029	7,212	7,254
Salaries and wages paid .. £'000	1,613	6,069	6,432	7,434	8,720	8,667
Value of power, fuel, etc., used .. £'000	598	3,063	3,253	3,753	4,282	4,413
Value of materials used .. £'000	16,844	53,711	62,859	70,000	68,426	58,120
Value of production .. £'000	3,892	12,648	14,148	17,787	19,773	18,138
Total value of output .. £'000	21,334	69,422	80,260	91,540	92,481	80,671
Value of land and buildings .. £'000	1,177	2,743	3,044	6,155	6,566	6,907
Value of plant and machinery .. £'000	3,526	5,390	6,019	13,367	14,485	15,262
Horse-power of engines ordinarily in use h.p.	54,450	65,067	66,280	79,696	76,212	76,070

(a) In Western Australia the majority of the plants are worked at the mines and are therefore not included. (b) Not available for publication; figures are included in the total for Australia. (c) See text above table.

9. **Electrical Machinery, Cables and Apparatus.**—The following table shows particulars of this industry for each State during 1957–58 and for Australia for a series of years:—

ELECTRICAL MACHINERY, CABLES AND APPARATUS.
1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	549	370	70	69	75	19	1,152
Number of persons employed ..	30,040	11,971	1,810	1,568	800	205	46,394
Salaries and wages paid .. £'000	27,799	10,603	1,471	1,248	609	162	41,892
Value of power, fuel, etc., used £'000	1,461	589	38	36	20	11	2,155
Value of materials used .. £'000	57,060	21,932	2,622	1,570	705	323	84,212
Value of production .. £'000	47,809	16,342	2,184	1,864	956	434	69,589
Total value of output .. £'000	106,330	38,863	4,844	3,470	1,681	768	155,956
Value of land and buildings £'000	17,126	9,004	681	770	553	182	28,316
Value of plant and machinery £'000	12,609	6,359	528	320	140	90	20,046
Horse-power of engines ordinarily in use h.p.	61,739	28,827	4,198	2,065	1,434	416	98,679

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	360	1,028	1,064	1,099	1,153	1,152
Number of persons employed ..	10,666	38,377	42,007	43,841	44,594	46,394
Salaries and wages paid .. £'000	2,031	28,969	33,403	36,663	38,780	41,892
Value of power, fuel, etc., used .. £'000	105	1,391	1,651	1,808	1,964	2,155
Value of materials used .. £'000	3,195	58,237	69,962	75,129	76,256	84,212
Value of production .. £'000	3,655	49,032	54,637	57,036	63,198	69,589
Total value of output .. £'000	6,955	108,660	126,250	133,973	141,418	155,956
Value of land and buildings .. £'000	1,627	13,829	16,885	19,992	25,306	28,316
Value of plant and machinery .. £'000	897	9,709	11,915	13,854	16,409	20,046
Horse-power of engines ordinarily in use h.p.	12,043	74,088	81,058	83,279	91,991	98,679

10. **Railway and Tramway Workshops (Government and Local Authority).**—The railway and tramway workshops, which form an important part of Class IV., are owned chiefly by State Governments and Local Authorities. *Workshops (fifteen in 1957–58) controlled by non-public bodies are not included in the figures below.*

TRAMCARS AND RAILWAY ROLLING STOCK.(a)
1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	42	22	13	13	27	7	124
Number of persons employed ..	14,904	7,554	6,763	4,233	3,840	785	38,079
Salaries and wages paid .. £'000	13,495	6,487	5,507	3,734	3,042	681	32,946
Value of power, fuel, etc., used £'000	435	229	137	133	117	32	1,083
Value of materials used .. £'000	6,498	5,168	3,037	3,147	1,941	259	20,050
Value of production .. £'000	16,564	8,603	6,399	4,600	3,644	875	40,685
Total value of output .. £'000	23,497	14,000	9,573	7,880	5,702	1,166	61,818
Value of land and buildings £'000	6,139	2,064	785	1,543	544	700	11,775
Value of plant and machinery £'000	9,396	1,108	1,190	2,163	1,042	335	15,234
Horse-power of engines ordinarily in use h.p.	45,035	23,416	17,196	14,373	11,513	3,272	114,805

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	117	124	123	125	125	124
Number of persons employed ..	27,310	39,262	38,599	38,357	38,780	38,079
Salaries and wages paid .. £'000	6,721	28,425	30,777	33,159	33,670	32,946
Value of power, fuel, etc., used .. £'000	226	994	1,025	1,061	1,090	1,083
Value of materials used .. £'000	4,976	17,093	18,818	20,555	21,565	20,050
Value of production .. £'000	8,021	34,354	37,505	40,404	41,172	40,685
Total value of output .. £'000	13,223	52,441	57,348	62,020	63,827	61,818
Value of land and buildings .. £'000	6,737	9,730	10,524	11,076	11,494	11,775
Value of plant and machinery .. £'000	5,290	12,166	13,124	14,072	14,673	15,234
Horse-power of engines ordinarily in use h.p.	53,671	108,478	112,184	116,775	122,852	114,805

(a) Government and Local Authority only.

Two railway workshops in the Northern Territory are engaged in repairing rolling stock, etc., no new goods being manufactured. Particulars of these establishments are not included in any of the tables in this chapter.

11. **Motor Vehicles.**—The industries catering for the motor trade are included in Class IV., Industrial Metals, Machines and Conveyances. In the table below, a summary is given of the principal statistics for 1957–58 for each branch of industry associated with the motor trade of Australia.

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC., AUSTRALIA.
1957-58.

Items.	Construc- tion and Assembly.	Repairs.	Motor Bodies. (a)	Motor Acces- sories.	Total.
Number of factories	66	9,038	1,550	255	10,909
Number of persons employed	17,864	56,829	25,953	9,734	110,380
Salaries and wages paid £'000	18,219	41,047	23,520	9,100	91,886
Value of power, fuel, etc., used £'000	1,272	1,312	1,022	644	4,250
Value of materials used £'000	40,041	45,706	46,118	11,859	143,724
Value of production £'000	32,152	64,589	35,260	16,382	148,383
Total value of output £'000	73,465	111,607	82,400	28,885	296,357
Value of land and buildings £'000	16,107	53,416	13,684	6,354	89,561
Value of plant and machinery £'000	16,921	12,523	10,837	6,349	46,630
Horse-power of engines ordinarily in use h.p.	54,525	63,194	55,880	37,665	211,264

(a) Includes motor body repairing, panel beating, duco spraying, etc.

In the next table, similar details are shown on a State basis for 1957-58 and for Australia for selected years for these industries combined:—

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	4,530	2,751	1,309	1,004	972	343	10,909
Number of persons employed	37,546	37,080	10,223	16,686	6,353	2,492	110,380
Salaries and wages paid £'000	30,745	32,502	7,051	15,013	4,743	1,832	91,886
Value of power, fuel, etc., used £'000	1,367	1,743	222	669	191	58	4,250
Value of materials used £'000	54,092	43,829	8,067	27,945	7,756	2,035	143,724
Value of production £'000	50,238	52,455	14,351	20,665	7,680	2,994	148,383
Total value of output £'000	105,697	98,027	22,640	49,279	15,627	5,087	296,357
Value of land and buildings £'000	35,229	31,851	6,375	8,888	4,929	2,289	89,561
Value of plant and machinery £'000	16,736	17,222	2,039	8,361	1,658	614	46,630
Horse-power of engines ordinarily in use h.p.	71,058	79,733	12,739	41,155	13,593	2,986	211,264

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	3,592	8,302	8,993	9,707	10,334	10,909
Number of persons employed	39,706	89,913	98,343	105,959	107,480	110,380
Salaries and wages paid £'000	10,582	62,454	73,073	84,082	86,282	91,886
Value of power, fuel, etc., used £'000	395	2,477	2,798	3,189	3,747	4,250
Value of materials used £'000	12,143	94,173	108,119	126,933	120,297	143,724
Value of production £'000	15,818	101,054	112,541	126,459	132,018	148,383
Total value of output £'000	28,356	197,704	223,458	256,581	256,062	296,357
Value of land and buildings £'000	9,878	45,835	55,451	66,235	78,817	89,561
Value of plant and machinery £'000	3,758	23,397	26,073	32,390	40,890	46,630
Horse-power of engines ordinarily in use h.p.	56,117	146,930	160,001	202,963	206,792	211,264

The table below shows the production and imports of motor bodies for 1938-39 and 1953-54 to 1958-59:—

PRODUCTION AND IMPORTS OF MOTOR BODIES(a): AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59. (b)
Motor Bodies(a)—							
Made No.	79,436	113,833	126,079	129,700	120,781	160,675	169,992
Assembled from Panels imported or made elsewhere No.	(c)	43,077	62,383	94,676	77,548	81,630	78,482
Imported (d) No.	532	26,874	37,924	19,041	7,062	(e) 5,890	(e) 6,104

(a) Excludes sidecars. (b) Preliminary—subject to revision. (c) Not available.
(d) Includes bodies on complete vehicles imported. (e) Since 20th March, 1958, includes only those bodies imported as complete vehicles.

12. Agricultural Machines and Implements.—Owing to the extensive agricultural activities conducted in Australia and the demand for modern mechanized farm equipment, the manufacture of agricultural implements constitutes an important branch of Australian industry. The articles manufactured include a wide range of implements for tillage, seeding and planting, and the harvesting of crops. Other farm machinery made includes windmills, chaff-cutters and machinery used in the dairying industry.

The following table shows details of establishments classified as agricultural implement works in each State for 1957-58 and for Australia for a series of years:—

AGRICULTURAL MACHINES AND IMPLEMENTS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	155	100	47	37	31	..	370
Number of persons employed ..	2,012	5,299	1,391	1,451	296	..	10,449
Salaries and wages paid .. £'000	1,838	5,085	1,104	1,261	246	..	9,534
Value of power, fuel, etc., used .. £'000	92	385	63	89	9	..	638
Value of materials used .. £'000	2,687	7,742	1,220	1,577	212	..	13,438
Value of production .. £'000	2,855	8,672	1,731	1,959	382	..	15,599
Total value of output .. £'000	5,634	16,799	3,014	3,625	603	..	29,675
Value of land and buildings .. £'000	2,151	2,731	659	737	342	..	6,620
Value of plant and machinery .. £'000	836	2,649	413	536	103	..	4,537
Horse-power of engines ordinarily in use .. h.p.	6,872	20,771	5,738	5,220	1,051	..	39,652

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	161	293	308	324	348	370
Number of persons employed ..	6,563	11,930	12,182	11,938	10,387	10,449
Salaries and wages paid .. £'000	1,373	9,473	10,206	10,364	9,107	9,534
Value of power, fuel, etc., used .. £'000	82	637	695	670	581	638
Value of materials used .. £'000	1,485	12,988	13,572	13,082	11,084	13,438
Value of production .. £'000	1,836	13,924	14,558	14,650	14,038	15,599
Total value of output .. £'000	3,403	27,549	28,825	28,402	25,703	29,675
Value of land and buildings .. £'000	997	3,918	5,038	5,774	6,153	6,620
Value of plant and machinery .. £'000	911	3,627	4,282	4,673	4,800	4,537
Horse-power of engines ordinarily in use h.p.	13,346	39,843	39,858	39,878	40,254	39,652

13. **Wireless and Amplifying Apparatus.**—Prior to 1930-31, statistics of the manufacture of wireless and amplifying apparatus were grouped with those relating to other electrical apparatus, but the new factory classification adopted in that year provided for separate details to be shown for Wireless Apparatus. The industry is confined mainly to New South Wales, Victoria and South Australia. Technical advances and the requirements of the fighting forces led to considerable expansion in the industry during the 1939-45 War and this development has continued, with one or two exceptions in each subsequent year. The introduction of television services in 1956 gave a further stimulus to the industry. The number of broadcast listeners' licences increased from a third of a million in 1930-31 to nearly 2,264,000 at 30th June, 1959, and this increase reflects the advancement of the industry during that period. At 30th June, 1959, 577,500 television viewers' licences had been issued.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	72	162	175	181	205	211
Number of persons employed ..	4,828	8,125	8,550	9,171	12,074	16,002
Salaries and wages paid .. £'000	754	5,751	6,398	7,051	9,145	13,264
Value of power, fuel, etc., used .. £'000	23	199	205	231	312	479
Value of materials used .. £'000	1,356	9,782	10,076	10,363	16,801	36,756
Value of production .. £'000	1,123	7,454	8,624	8,907	11,767	20,725
Total value of output .. £'000	2,502	17,435	18,905	19,501	28,880	57,960
Value of land and buildings .. £'000	558	2,011	2,300	3,428	4,752	6,374
Value of plant and machinery .. £'000	305	1,132	1,242	1,761	3,101	4,250
Horse-power of engines ordinarily in use h.p.	2,710	9,274	8,930	9,624	11,658	13,506
Wireless receiving sets made(a) .. No.	163,821	438,978	456,034	458,012	366,282	380,753
Television receiving sets made .. No.	..	..	..	2,636	121,232	252,430

(a) Including radiograms and car radios.

NOTE.—There were 383,500 wireless receiving sets (including radiograms) and 319,000 television receiving sets made in 1958-59.

14. Cotton.—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The average annual quantity of unginned cotton produced was 18 million lb. during the five years ended 1938–39, and slightly over 4½ million lb. in the five years ended 1957–58. The growing of cotton, which is restricted to Queensland, is referred to in some detail in Chapter XXII.—Agricultural Production.

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly (in 1958–59) from India, Pakistan, Brazil, Mexico, Peru and the United States of America.

(iii) *Spinning and Weaving.* The post war expansion in the spinning and weaving section of the cotton industry marks an important stage in its development. New factories have been established and Australia is now producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia and other particulars of the industry are shown in the following table for the years 1938–39 and 1953–54 to 1957–58.

COTTON SPINNING AND WEAVING: AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	33	96	96	97	91	97
Number of persons employed	3,589	9,470	9,582	9,598	9,754	9,879
Salaries and wages paid £'000	493	6,602	6,845	7,297	7,799	8,268
Value of power, fuel, etc., used £'000	50	690	706	703	890	958
Value of materials used £'000	1,357	18,083	18,505	18,571	19,485	24,025
Value of production £'000	979	10,809	11,343	12,227	14,202	15,622
Total value of output £'000	2,386	29,582	30,554	31,501	34,577	40,605
Value of land and buildings £'000	704	4,104	5,078	5,719	6,478	7,179
Value of plant and machinery £'000	736	4,411	4,355	4,637	5,312	6,702
Horse-power of engines ordinarily in use h.p.	9,128	33,201	34,356	34,657	34,568	35,880

15. Wool Carding, Spinning and Weaving.—The importance of this industry is emphasised by the fact that Australia is the world's chief source of wool and the development of the woollen industry since its establishment at an early period in Australian history is of singular interest. The production consists chiefly of woollen cloth and tweed, worsted cloth, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability.

WOOL CARDING, SPINNING AND WEAVING.

1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	43	88	4	3	3	5	146
Number of persons employed	6,133	12,055	966	625	(a)	(a)	22,386
Salaries and wages paid £'000	4,455	9,065	545	444	(a)	(a)	16,380
Value of power, fuel, etc., used £'000	402	811	39	44	(a)	(a)	1,463
Value of materials used £'000	10,293	25,218	1,653	1,112	(a)	(a)	46,012
Value of production £'000	7,297	13,432	782	782	(a)	(a)	25,737
Total value of output £'000	17,992	39,461	2,474	1,938	(a)	(a)	73,212
Value of land and buildings £'000	2,592	5,543	194	215	(a)	(a)	9,364
Value of plant and machinery £'000	3,148	6,583	316	276	(a)	(a)	11,641
Horse-power of engines ordinarily in use h.p.	16,436	41,081	3,706	1,614	(a)	(a)	70,433

(a) Not available for publication; figures are included in the total for Australia.

WOOL CARDING, SPINNING AND WEAVING—*continued.*

AUSTRALIA.

Items.	1938-39. (a)	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	90	164	151	145	143	146
Number of persons employed	19,608	22,619	21,844	21,899	23,217	22,386
Salaries and wages paid £'000	2,888	14,382	13,945	14,409	16,340	16,380
Value of power, fuel, etc., used £'000	393	1,329	1,288	1,345	1,479	1,463
Value of materials used £'000	7,331	45,033	38,938	39,532	49,303	46,012
Value of production £'000	4,791	23,237	21,898	24,082	27,649	25,737
Total value of output £'000	12,515	69,599	62,124	64,959	78,431	73,212
Value of land and buildings £'000	2,380	6,894	7,369	7,713	9,019	9,364
Value of plant and machinery £'000	3,370	9,086	10,053	10,673	10,855	11,641
Horse-power of engines ordinarily in use h.p.	42,944	68,715	66,817	71,752	99,385	70,433
Articles produced—						
Woollen and worsted cloth(b)(c)'000 sq. yds.	31,768	35,027	31,067	30,279	32,782	31,719
Blankets and rugs(b) '000	1,279	1,340	1,673	1,799	1,841	2,032

(a) Includes Woolsouring Works in Victoria and Tasmania and Woolsouring Works and Fellmongeries in South Australia. (b) Includes production in other industries. (c) Includes mixtures.

NOTE.—Preliminary production figures for 1958-59 were: Woollen and Worsted Cloth, 27,245,000 square yards; Blankets and Rugs, 1,815,000.

16. Hosiery and Other Knitted Goods.—Details for each State for 1957-58 and for Australia for a series of years are shown in the following table:—

HOSIERY AND OTHER KNITTED GOODS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	201	427	5	10	10	4	657
Number of persons employed	6,931	15,039	592	107	(a)	(a)	22,939
Salaries and wages paid £'000	4,889	10,658	357	58	(a)	(a)	16,124
Value of power, fuel, etc., used £'000	235	514	10	2	(a)	(a)	770
Value of materials used £'000	11,262	24,541	1,755	82	(a)	(a)	38,002
Value of production £'000	9,639	17,969	682	87	(a)	(a)	28,615
Total value of output £'000	21,136	43,024	2,447	171	(a)	(a)	67,387
Value of land and buildings £'000	3,236	7,320	168	48	(a)	(a)	10,910
Value of plant and machinery £'000	2,442	5,776	235	23	(a)	(a)	8,539
Horse-power of engines ordinarily in use h.p.	6,490	14,205	689	190	(a)	(a)	21,858

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	313	645	661	664	665	657
Number of persons employed	18,159	23,937	24,614	23,409	23,492	22,939
Salaries and wages paid £'000	2,332	14,277	15,117	15,117	16,052	16,124
Value of power, fuel, etc., used £'000	133	684	656	687	744	770
Value of materials used £'000	4,284	30,372	31,317	31,822	34,769	38,002
Value of production £'000	3,809	26,155	27,535	27,236	29,035	28,615
Total value of output £'000	8,226	57,211	59,508	59,745	64,548	67,387
Value of land and buildings £'000	1,962	7,253	8,643	9,339	9,939	10,910
Value of plant and machinery £'000	1,931	7,201	7,917	8,159	8,143	8,539
Horse-power of engines ordinarily in use h.p.	8,884	18,478	20,884	20,315	22,911	21,858

The following quantities of yarn were used in these establishments during 1957-58:—Worsted or woollen 8,629,955 lb.; mixtures predominantly woollen or worsted, 1,469,091 lb.; cotton, 10,837,056 lb.; mercerised cotton, 368,103 lb.; rayon, spun, 7,575,573 lb.; rayon filament, 2,916,129 lb.; silk, 17,932 lb.; nylon, spun, 633,711 lb.; nylon filament, 2,936,063 lb.; other yarns, 747,542 lb. Production of garments and stockings is shown in § 10 (*see p. 182*).

17. *Tanning, Currying and Leather Dressing.*—(i) *Details of Industry.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING.
1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	60	36	13	9	5	1	124
Number of person employed ..	1,745	1,995	582	213	(a)	(a)	4,708
Salaries and wages paid .. £'000	1,720	1,847	498	206	(a)	(a)	4,413
Value of power, fuel, etc., used £'000	186	201	45	25	(a)	(a)	470
Value of materials used .. £'000	5,080	4,292	1,584	568	(a)	(a)	11,938
Value of production .. £'000	2,296	2,590	813	329	(a)	(a)	6,214
Total value of output .. £'000	7,562	7,083	2,442	922	(a)	(a)	18,622
Value of land and buildings £'000	1,048	1,018	109	88	(a)	(a)	2,341
Value of plant and machinery £'000	845	829	254	164	(a)	(a)	2,154
Horse-power of engines ordinarily in use h.p.	12,826	12,882	3,565	1,980	(a)	(a)	32,378

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	132	142	140	137	133	124
Number of persons employed ..	4,375	5,445	5,393	4,972	4,746	4,708
Salaries and wages paid .. £'000	920	4,464	4,518	4,468	4,383	4,413
Value of power, fuel etc., used .. £'000	88	417	408	415	446	470
Value of materials used .. £'000	2,983	10,477	10,675	11,180	11,738	11,938
Value of production .. £'000	1,522	6,672	6,743	6,082	5,736	6,214
Total value of output .. £'000	4,593	17,566	17,826	17,677	17,920	18,622
Value of land and buildings .. £'000	814	2,055	2,219	2,176	2,314	2,341
Value of plant and machinery .. £'000	524	1,990	2,128	2,231	2,264	2,154
Horse-power of engines ordinarily in use h.p.	12,345	31,182	31,708	31,590	30,799	32,378

(ii) *Materials Used and Articles Produced.* The quantities of materials used and leather produced in tanneries in each State in 1957-58 are shown in the following table:—

TANNERIES: MATERIALS USED AND PRODUCTION, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Materials used—							
Hides (cattle)—							
Yearling .. No.	147,181	49,512	5,582	(a)	(a)	..	207,758
Light Hides(b) ..	367,004	582,307	208,851	(a)	48,670	(a)	1,235,830
Heavy Hides(c) ..	410,378	433,584	208,258	114,364	(a)	(a)	1,228,520
Skins—							
Calf ..	817,394	312,317	(a)	(a)	..	..	1,187,441
Goat ..	347,904	(a)	(a)	..	..	..	352,633
Sheep including Pelts ..	1,810,460	396,876	(a)	(a)	..	..	2,690,894
Marsupial ..	36,104	22,347	81,487	(a)	(a)	..	142,411
Bark used—							
Wattle .. tons	1,948	3,915	1,019	(a)	..	(a)	7,134
Mallet and Other ..	(a)	803	(a)	..	263	..	1,103
Tanning extract (veg.) used ..	2,336	2,476	1,825	(a)	756	(a)	7,956
Articles produced—							
Leather made—							
Sole .. lb.	7,040,497	13,082,606	6,399,982	(a)	1,879,629	(a)	29,084,888
Harness, Belting, etc. ..	723,357	358,532	366,354	(a)	(a)	..	2,204,707
Upholstery .. sq. ft.	(a)	622,711	(a)	(a)	(a)	..	900,150
Dressed and Upper from Hides—							
Sold by Measurement—							
Patent .. sq. ft.	(a)	(a)	..	..	..	..	1,186,962
All Other ..	21,015,250	23,092,040	8,769,158	4,671,654	(a)	(a)	59,192,588
Sold by Weight (all kinds) .. lb.	137,926	(a)	(a)	..	(a)	(a)	185,313
Dressed from skins—							
Calf .. sq. ft.	4,510,469	2,190,447	(a)	(a)	..	..	7,251,549
Goat ..	1,468,445	(a)	(a)	..	..	..	1,498,077
Sheep ..	8,658,785	1,499,801	(a)	(a)	..	..	11,765,996
Marsupial ..	181,666	138,937	349,104	(a)	(a)	..	702,357

(a) Not available for publication; figures are included in the total for Australia.
(c) Over 45 lb.

(b) Up to 45 lb.

18. Tailoring and Ready-made Clothing.—Statistics showing the distribution of this industry among the States in 1957-58 and for Australia for a series of years are shown in the following table:—

TAILORING AND READY-MADE CLOTHING.
1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	933	634	116	98	116	17	1,914
Number of persons employed ..	17,389	9,779	2,114	1,308	675	192	31,457
Salaries and wages paid .. £'000	10,717	6,448	1,050	716	306	100	19,337
Value of power, fuel, etc., used .. £'000	226	143	22	19	10	2	422
Value of materials used .. £'000	20,112	13,113	1,987	849	541	78	36,680
Value of production .. £'000	16,655	10,830	1,974	1,000	518	140	31,117
Total value of output .. £'000	36,993	24,086	3,983	1,868	1,069	220	68,219
Value of land and buildings .. £'000	5,631	3,706	613	612	372	80	11,014
Value of plant and machinery .. £'000	1,549	1,078	140	94	41	11	2,913
Horse-power of engines ordinarily in use .. h.p.	5,214	3,274	564	413	164	42	9,671

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	1,177	1,963	1,985	1,952	1,944	1,914
Number of persons employed ..	26,499	33,264	33,384	32,587	31,920	31,457
Salaries and wages paid .. £'000	3,168	17,215	17,968	18,261	18,760	19,337
Value of power, fuel, etc., used .. £'000	72	380	390	393	416	422
Value of materials used .. £'000	4,947	33,598	34,237	35,941	35,883	36,680
Value of production .. £'000	4,812	26,076	28,031	28,940	29,811	31,117
Total value of output .. £'000	9,831	60,054	62,658	65,274	66,110	68,219
Value of land and buildings .. £'000	3,176	8,251	8,917	9,484	10,137	11,014
Value of plant and machinery .. £'000	356	2,523	2,663	2,746	2,861	2,913
Horse-power of engines ordinarily in use h.p.	2,607	9,339	9,198	9,017	9,133	9,671

19. Dressmaking and Millinery Establishments.—Particulars of dressmaking and millinery establishments in Australia for the years 1938-39 and 1953-54 to 1957-58 are shown in the following table:—

DRESSMAKING AND MILLINERY: AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	869	1,433	1,411	1,410	1,311	1,295
Number of persons employed ..	16,398	19,197	18,014	17,675	16,265	15,668
Salaries and wages paid .. £'000	1,653	9,230	8,975	9,063	8,783	8,859
Value of power, fuel, etc., used .. £'000	33	187	176	177	185	184
Value of materials used .. £'000	2,610	13,634	13,109	13,029	12,447	11,999
Value of production .. £'000	2,592	14,392	14,501	14,585	14,244	14,220
Total value of output .. £'000	5,235	28,213	27,786	27,791	26,876	26,403
Value of land and buildings .. £'000	2,052	5,033	5,256	5,788	5,966	6,693
Value of plant and machinery .. £'000	189	1,108	1,123	1,174	1,152	1,246
Horse-power of engines ordinarily in use h.p.	1,732	4,858	4,740	4,697	4,635	4,558

20. Shirts, Collars and Underclothing.—Particulars of this industry are shown below for each State for 1957-58 and for Australia for a series of years:—

SHIRTS, COLLARS AND UNDERCLOTHING.
1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	156	170	19	23	14	2	384
Number of persons employed ..	4,639	6,349	1,070	407	(a)	(a)	13,038
Salaries and wages paid .. £'000	2,820	3,912	506	205	(a)	(a)	7,718
Value of power, fuel, etc., used .. £'000	55	61	8	4	(a)	(a)	134
Value of materials used .. £'000	6,966	8,206	709	271	(a)	(a)	16,595
Value of production .. £'000	4,388	6,188	670	286	(a)	(a)	11,945
Total value of output .. £'000	11,409	14,455	1,387	561	(a)	(a)	28,674
Value of land and buildings .. £'000	1,449	1,722	180	96	(a)	(a)	3,587
Value of plant and machinery .. £'000	519	579	69	20	(a)	(a)	1,233
Horse-power of engines ordinarily in use .. h.p.	1,768	2,689	230	155	(a)	(a)	5,064

(a) Not available for publication; figures are included in the total for Australia.

SHIRTS, COLLARS AND UNDERCLOTHING—*continued.*

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58
Number of factories	283	379	392	404	397	384
Number of persons employed	11,081	11,156	12,745	12,686	13,157	13,038
Salaries and wages paid £'000	1,143	5,684	6,702	6,957	7,640	7,718
Value of power, fuel, etc., used £'000	23	92	106	119	129	134
Value of materials used £'000	2,651	12,077	15,020	16,112	16,285	16,595
Value of production £'000	1,761	9,377	10,927	11,328	12,051	11,945
Total value of output £'000	4,435	21,546	26,053	27,559	28,465	28,674
Value of land and buildings £'000	946	2,417	2,719	2,999	3,543	3,587
Value of plant and machinery £'000	231	905	1,053	1,146	1,229	1,233
Horse-power of engines ordinarily in use h.p.	1,874	4,320	4,468	4,881	5,177	5,064

21. **Boots and Shoes.**—(i) *Details of Industry.* Boot and shoe factories hold an important place in respect of both employment afforded and extent of output. The following tables refer to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand shoes, goloshes and gum, etc., boots of rubber are not included here, being classified under Rubber Goods, *see* para, 38, page 212.

BOOTS AND SHOES.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Aust.
Number of factories	175	221	28	18	11	33	486
Number of persons employed	6,777	11,092	1,155	1,162	503	150	20,839
Salaries and wages paid £'000	4,989	8,005	766	902	335	93	15,090
Value of power, fuel, etc., used £'000	88	142	12	15	7	2	266
Value of materials used £'000	7,132	12,641	1,195	1,352	403	131	22,854
Value of production £'000	7,231	11,936	989	1,240	482	141	22,019
Total value of output £'000	14,451	24,719	2,196	2,607	892	274	45,139
Value of land and buildings £'000	1,575	2,276	201	271	146	98	4,567
Value of plant and machinery £'000	824	2,281	313	406	120	35	3,979
Horse-power of engines ordinarily in use h.p.	4,773	9,202	972	1,009	563	144	16,663

AUSTRALIA.

Items.	1945-46.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	383	520	516	494	474	486
Number of persons employed	18,264	22,953	22,323	21,557	21,432	20,839
Salaries and wages paid £'000	4,408	14,215	14,241	14,310	15,234	15,090
Value of power, fuel, etc., used £'000	75	225	227	233	257	266
Value of materials used £'000	7,520	20,508	21,020	21,812	22,221	22,854
Value of production £'000	6,472	19,444	19,640	20,480	21,222	22,019
Total value of output £'000	14,067	40,177	40,887	42,525	43,700	45,139
Value of land and buildings £'000	1,518	3,491	3,733	3,846	4,267	4,567
Value of plant and machinery £'000	1,222	3,152	3,380	3,646	3,715	3,979
Horse-power of engines ordinarily in use h.p.	9,678	16,679	17,488	16,485	16,496	16,663

(a) Includes details of boot and shoe repairing.

(ii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made in factories producing boots and shoes in each State are shown for 1957-58 in the following table. Particulars relating to the output of sand shoes, goloshes and gum, etc., boots of rubber are not included:—

BOOT AND SHOE FACTORIES: OUTPUT, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Boots, shoes and sandals pairs	7,472,914	10,474,167	1,220,623	1,609,502	(a)	(a)	21,395,431
£	13,329,785	20,435,904	1,944,052	2,554,619	(a)	(a)	39,149,005
Slippers .. pairs	2,779,596	5,725,161	300,169	61,602	286,176	..	9,152,704
£	1,777,501	2,934,625	199,932	41,312	224,639	..	5,178,009

(a) Not available for publication; figures are included in the total for Australia.

Preliminary figures for 1958-59 were—Boots, Shoes and Sandals, 24,024,000 pairs; and Slippers, 8,481,000 pairs.

22. *Flour-milling.*—(i) *Details of Industry.* The following table shows the position of the flour-milling industry in each State for the year 1957-58 and for Australia for a series of years:—

FLOUR-MILLING.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	47	34	11	21	19	10	142
Number of persons employed ..	1,409	1,314	542	428	455	136	4,284
Salaries and wages paid .. £'000	1,495	1,308	441	414	395	137	4,190
Value of power, fuel, etc., used .. £'000	311	232	82	83	104	15	827
Value of materials used .. £'000	17,553	18,509	5,672	5,103	5,659	1,163	53,659
Value of production .. £'000	4,198	3,032	987	692	797	228	9,934
Total value of output .. £'000	22,062	21,773	6,741	5,878	6,560	1,406	64,420
Value of land and buildings .. £'000	2,474	1,882	786	369	731	80	6,322
Value of plant and machinery .. £'000	2,479	1,482	796	527	599	79	5,962
Horse-power of engines ordinarily in use h.p.	17,808	15,235	4,944	3,729	5,537	1,196	48,449

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	172	157	151	151	143	142
Number of persons employed ..	3,783	4,602	4,528	4,548	4,729	4,284
Salaries and wages paid .. £'000	896	3,847	3,851	4,073	4,375	4,190
Value of power, fuel, etc., used .. £'000	231	847	805	835	946	827
Value of materials used .. £'000	10,573	53,946	54,436	54,498	59,094	53,659
Value of production .. £'000	2,091	8,134	7,311	7,575	9,608	9,934
Total value of output .. £'000	12,895	62,927	62,552	62,908	69,648	64,420
Value of land and buildings .. £'000	2,091	4,260	4,533	5,211	5,686	6,322
Value of plant and machinery .. £'000	1,814	4,921	5,060	5,405	5,690	5,962
Horse-power of engines ordinarily in use h.p.	27,795	52,545	46,566	47,786	48,103	48,449

(ii) *Production of Flour and By-products.* The production of flour by the mills in each State (including other than flour mills) for the years 1938-39 and 1953-54 to 1958-59 was as follows:—

FLOUR-MILLING: PRODUCTION OF FLOUR.(a)

(Tons of 2,000 lb.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	547,162	436,829	84,314	146,262	138,583	19,582	1,372,732
1953-54 ..	603,575	473,842	138,524	164,907	197,654	30,556	1,609,058
1954-55 ..	586,549	455,906	157,904	143,840	178,851	29,969	1,553,019
1955-56 ..	571,084	454,628	169,793	154,327	193,490	27,983	1,571,305
1956-57 ..	621,476	461,663	170,397	164,417	184,717	29,157	1,631,827
1957-58 ..	416,490	484,993	143,613	138,537	163,347	28,739	1,375,719
1958-59 (b) ..	440,392	436,764	151,711	136,844	164,475	29,141	1,359,327

(a) Includes wheatmeal for baking and sharps.

(b) Preliminary, subject to revision.

In addition, 523,000 tons (2,000 lb. per ton) of bran and pollard were produced in 1957-58 and 500,000 tons in 1958-59. The total quantity of wheat ground in flour mills was 62,300,000 bushels in 1957-58 and 62,254,000 bushels in 1958-59.

23. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on is given in the table below. It should be noted, however, that the details refer only to establishments coming within the definition of a factory as explained at the beginning of this section. For that reason, the tables do not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded. This is true of all other industries covered by the statistics of manufacturing production, but, in view of the omission of such a large number of establishments in this instance, special mention is deemed necessary.

BAKERIES (INCLUDING CAKES AND PASTRY).

1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Aust.(a)
Number of factories	1,685	1,075	505	272	295	154	3,986
Number of persons employed ..	8,005	5,472	2,437	1,633	1,040	1,736	20,323
Salaries and wages paid .. £'000	5,235	3,605	1,315	1,063	583	1,309	13,110
Value of power, fuel, etc., used .. £'000	1,032	668	254	191	126	169	2,440
Value of materials used .. £'000	17,229	10,884	4,785	3,515	2,240	4,823	43,476
Value of production .. £'000	12,271	7,845	3,182	2,358	1,489	2,671	29,816
Total value of output .. £'000	30,532	19,397	8,221	6,064	3,855	7,663	75,732
Value of land and buildings .. £'000	8,736	5,923	1,558	1,518	928	1,542	20,205
Value of plant and machinery .. £'000	4,598	3,470	1,012	928	677	1,112	11,797
Horse-power of engines ordinarily in use h.p.	10,967	8,001	3,241	3,139	2,011	4,803	32,162

AUSTRALIA.(a)

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	1,958	3,687	3,800	3,878	3,813	3,986
Number of persons employed ..	11,715	18,758	19,125	19,543	19,964	20,323
Salaries and wages paid £'000	1,993	9,954	10,648	11,611	12,663	13,110
Value of power, fuel, etc., used £'000	306	1,805	1,902	2,090	2,308	2,440
Value of materials used £'000	6,651	32,829	35,899	37,820	40,704	43,476
Value of production £'000	4,509	23,107	23,582	26,418	29,706	29,816
Total value of output £'000	11,466	57,741	61,383	66,328	72,718	75,732
Value of land and buildings £'000	4,960	13,617	14,352	15,865	17,991	20,205
Value of plant and machinery £'000	1,478	7,158	8,373	9,461	10,590	11,797
Horse-power of engines ordinarily in use h.p.	10,855	26,462	27,815	29,535	30,204	32,162

(a) Includes confectionery in Tasmania.

24. **Sugar-mills.**—(i) *General.* Sugar-cane is grown in New South Wales and Queensland and particulars of area, yield, etc., are given in extended detail in Chapter XXII.—Agricultural Production.

The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Particulars of cane crushed and sugar produced embodied in the following table refer to the quantities treated during the years ended 30th June, irrespective of the season in which the cane was grown; consequently, the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XXII.—Agricultural Production, which relate to harvest years.

(ii) *Details for States.* The following table shows details of the operations of sugar mills in New South Wales and Queensland for the years 1938-39 and 1953-54 to 1957-58:—

SUGAR-MILLS.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
NEW SOUTH WALES.						
Number of factories ..	3	3	3	3	3	3
Number of persons employed ..	212	156	187	152	153	170
Cane crushed .. tons	337,038	263,249	222,313	284,539	294,087	303,086
Raw sugar produced (94 net titre) tons	45,106	34,004	26,301	36,028	35,918	36,854
QUEENSLAND.						
Number of factories ..	33	31	31	31	31	31
Number of persons employed ..	4,419	7,358	7,272	7,044	7,099	6,547
Cane crushed .. tons	5,432,193	8,751,063	9,864,304	8,616,163	8,978,081	8,945,617
Raw sugar produced (94 net titre) tons	775,064	1,220,383	1,301,245	1,135,685	1,171,879	1,256,271
Molasses—						
Sold to distilleries .. '000 gals	8,276	23,323	23,167	22,772	24,094	20,558
Used as fodder "	4,237	5,486	5,753	5,285	5,536	4,861
Used as manure "	3,293	11,466	10,501	10,637	9,177	10,880
Run to waste "	499	168	233	185	51	285
Burnt as fuel "	3,749	183	1,079	1,519	1,405	284
Sold or used for other purposes '000 gals	232	516	473	588	523	508
Total molasses disposed of '000 gals	20,286	41,142	41,206	40,986	40,786	37,376

25. *Sugar-refining.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1957-58, there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia. The total quantity of raw sugar treated amounted to 521,920 tons for a yield of 493,093 tons of refined sugar.

26. *Confectionery.*—Particulars for 1957-58 for each State and for Australia for a series of years are shown hereunder:—

CONFECTIONERY.
1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(b)
Number of factories ..	94	83	18	15	7	(a)	217
Number of persons employed ..	2,905	3,042	196	349	297	(a)	6,789
Salaries and wages paid .. £'000	2,250	2,254	95	198	185	(a)	4,982
Value of power, fuel, etc., used .. £'000	258	223	10	22	16	(a)	529
Value of materials used £'000	7,798	6,856	364	531	503	(a)	16,052
Value of production £'000	5,242	3,753	156	292	328	(a)	9,771
Total value of output £'000	13,298	10,832	530	845	847	(a)	26,352
Value of land and buildings .. £'000	2,135	1,795	90	236	95	(a)	4,351
Value of plant and machinery .. £'000	1,805	1,802	73	131	80	(a)	3,891
Horse-power of engines ordinarily in use h.p.	13,496	13,664	318	1,358	420	(a)	29,256

AUSTRALIA.(b)

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	148	249	238	213	217
Number of persons employed	7,256	6,976	7,069	7,183	6,789
Salaries and wages paid £'000	..	1,041	4,382	4,516	4,805	4,982
Value of power, fuel, etc., used £'000	..	107	444	447	473	529
Value of materials used £'000	..	3,102	13,857	14,917	15,583	16,052
Value of production £'000	..	2,418	8,307	8,320	8,932	9,885
Total value of output £'000	..	5,627	22,608	23,684	24,988	26,352
Value of land and buildings £'000	..	1,423	2,650	2,964	3,324	3,239
Value of plant and machinery £'000	..	1,364	3,039	3,368	3,612	3,582
Horse-power of engines ordinarily in use h.p.	..	16,154	28,763	27,374	29,156	27,348

(a) Not available for publication. Included with bakeries.

(b) Excludes Tasmania.

27. Jam, Fruit and Vegetable Canning, Pickles, Sauces, Vinegar.—(i) *Details of Industry.* The following table shows particulars of factories included in this class for each State for 1957–58 and for Australia for a series of years:—

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR.
1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	58	63	18	18	9	21	187
Number of persons employed ..	2,684	4,903	1,295	1,172	124	1,229	11,407
Salaries and wages paid .. £'000	2,214	4,462	1,054	911	83	1,028	9,752
Value of power, fuel, etc., used £'000	260	472	73	77	7	89	978
Value of materials used .. £'000	8,342	22,054	4,967	2,729	295	2,772	41,159
Value of production .. £'000	4,459	10,407	1,713	1,430	189	1,555	19,753
Total value of output .. £'000	13,061	32,933	6,753	4,236	491	4,416	61,890
Value of land and buildings .. £'000	2,302	6,086	745	482	148	858	10,621
Value of plant and machinery .. £'000	1,626	5,617	426	656	64	886	9,275
Horse-power of engines ordinarily in use .. h.p.	9,852	37,012	2,821	2,028	349	3,762	55,824

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories ..	123	197	184	183	182	187
Number of persons employed ..	6,476	11,101	11,061	11,578	12,019	11,407
Salaries and wages paid .. £'000	1,149	7,870	7,945	8,924	9,698	9,752
Value of power, fuel, etc., used .. £'000	97	660	699	802	957	978
Value of materials used .. £'000	4,800	28,875	29,708	32,323	39,874	41,159
Value of production .. £'000	2,334	14,992	15,312	16,103	18,792	19,753
Total value of output .. £'000	7,231	44,527	45,719	49,228	59,623	61,890
Value of land and buildings .. £'000	1,382	6,137	6,193	8,874	9,790	10,621
Value of plant and machinery .. £'000	721	5,404	5,496	8,083	8,752	9,275
Horse-power of engines ordinarily in use h.p.	7,873	31,721	32,661	38,508	45,820	55,824

(ii) *Production.* During the 1939–45 War, production of jams increased greatly and an output of 171 million lb. was attained in 1943–44. Production afterwards decreased, but attained a new record of 198.5 million lb. in 1947–48. It dropped to 107.8 million lb. in 1957–58. Preliminary figures for 1958–59 show production as being 75.0 million lb.

Production of preserved fruit in 1957–58 was 349.4 million lb., the highest on record, the previous highest level being 338.6 million lb. in 1953–54. Preliminary figures for 1958–59 show production as being 317.1 million lb.

There has also been a marked development in the production of canned vegetables. In 1938–39, output totalled 10.3 million lb. but, as a result of the war-time demand by the armed services, production reached the record level of 119.1 million lb. in 1944–45. However, it has since declined and in 1957–58 amounted to 87.0 million lb. Preliminary figures for 1958–59 show production as being 66.6 million lb.

The following table shows the total quantity of jams, pickles, sauces and other items manufactured in each State in 1957–58:—

JAMS, PRESERVED FRUIT AND VEGETABLES, PICKLES AND SAUCES: 1957–58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Jams '000 lb.	22,484	54,524	10,775	(a)	(a)	(a)	107,773
Fruit, preserved	42,874	190,776	56,976	37,405	(a)	(a)	349,411
Fruit Pulp(b) cwt.	31,891	160,179	6,076	(a)	6,347	(a)	293,969
Fruit Juices, natural .. '000 gals.	384	150	2,390	344	(a)	(a)	3,670
Vegetables, preserved .. '000 lb.	31,557	35,985	273	1,634	851	16,744	87,044
Pickled Vegetables	4,791	951	65	1,224	324	(a)	7,355
Tomato Pulp(b) cwt.	47,510	406,940	(a)	(a)	10,560	(a)	501,443
Tomato Paste, Puree, etc., .. '000 pints	321	1,703	(a)	(a)	(a)	(a)	2,096
Tomato Juice '000 gals.	170	519	(a)	661	(a)	(a)	1,408
Pickles '000 pints	1,564	1,949	(a)	(a)	(a)	(a)	5,503
Chutney " "	525	(a)	(a)	(a)	(a)	(a)	1,332
Sauces " "	11,638	12,695	1,507	2,303	(a)	(a)	29,328
Soup (canned) " "	3,965	22,970	(a)	(a)	(a)	(a)	27,346
Soup, Dry Mix '000 lb.	(a)	(a)	(a)	(a)	(a)	(a)	3,606

(a) Not available for publication. Figures are included in the total for Australia.

(b) Including quantities made and used in the works producing them.

28. Bacon-curing.—(i) *Details of Industry.* The table hereunder shows particulars of factories, engaged in bacon-curing in each State for 1957–58 and for Australia for a series of years:—

BACON-CURING.

1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	29	16	9	14	4	8	80
Number of person employed ..	712	841	1,335	480	268	109	3,745
Salaries and wages paid .. £'000	652	756	1,102	473	231	97	3,311
Value of power, fuel, etc., used £'000	84	99	105	66	39	10	403
Value of materials used .. £'000	4,844	4,593	7,025	2,388	2,567	730	22,147
Value of production .. £'000	1,430	1,904	2,257	627	398	182	6,798
Total value of output .. £'000	6,358	6,596	9,387	3,081	3,004	922	29,348
Value of land and buildings £'000	577	640	793	389	124	144	2,667
Value of plant and machinery £'000	315	366	570	295	69	39	1,654
Horse-power of engines ordinarily in use h.p.	2,271	3,281	5,321	2,184	1,133	557	14,747

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	76	85	84	82	81	80
Number of persons employed ..	2,047	2,975	3,201	3,414	3,472	3,745
Salaries and wages paid .. £'000	480	2,270	2,517	2,754	2,956	3,311
Value of power, fuel, etc., used .. £'000	77	298	322	339	362	403
Value of materials used .. £'000	3,768	19,448	18,318	20,814	22,373	22,147
Value of production .. £'000	865	4,410	5,715	4,997	5,273	6,798
Total value of output .. £'000	4,710	24,156	24,355	26,150	28,008	29,348
Value of land and buildings .. £'000	750	1,737	1,956	2,308	2,452	2,667
Value of plant and machinery .. £'000	357	955	1,100	1,329	1,512	1,654
Horse-power of engines ordinarily in use h.p.	9,389	11,685	11,791	13,019	13,472	14,747

(ii) *Quantity of Production.* The number of pigs cured and the quantity of bacon and ham and lard produced in factories in each State for 1957–58 are shown in the following table:—

BACON-CURING FACTORIES: PIGS CURED AND PRODUCTION, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Pigs killed for bacon and ham—							
For curing on own account	165,640	168,793	232,548	82,223	122,243	31,709	802,621
For curing on commission	12,828	3,711	2,384	1,121			
Pork and green bacon used for—							
Curing on own account							
'000 lb.	5,259	2,927	(a)	1,037	(a)	..	10,371
Curing on commission							
'000 lb.	4,975	197	(a)	(a)	(a)	(a)	5,199
Sugar used ton	46	37	173	20	30	14	320
Finished bacon and ham made (b)							
On own account '000 lb.	17,422	14,403	18,372	6,538	6,581	1,758	65,074
On commission ..	5,656	556	220	113	(a)	(a)	6,597
Green bacon and ham ..	971	2,048	1,092	462	752	374	5,699
Lard produced	3,972	6,313	25,774	4,776	10,064	896	51,795

(a) Not available for publication; figures are included in the total for Australia. (b) Includes smoked bacon and ham, cooked ham (not smoked) made for retail sale, and canned bacon and ham.

Bacon and ham and other pig products are dealt with more fully in Chapter XXIV.—
Farmyard, Dairy and Bee Products.

29. Butter, Cheese and Condensed and Dried Milk.—(i) *Details of Industry.* The following table shows particulars of butter, cheese and condensed and dried milk factories in each State for 1957–58 and for Australia for a series of years:—

BUTTER, CHEESE AND CONDENSED AND DRIED MILK.
1957–58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	74	131	81	41	18	21	366
Number of persons employed ..	2,447	5,417	1,574	756	302	374	10,870
Salaries and wages paid .. £'000	2,199	5,345	1,257	594	254	346	9,995
Value of power, fuel, etc., used £'000	643	1,532	266	113	65	73	2,692
Value of materials used .. £'000	14,886	50,558	16,844	4,664	3,058	4,556	94,566
Value of production .. £'000	3,210	11,617	2,458	906	467	903	19,561
Total value of output .. £'000	18,739	63,707	19,568	5,683	3,590	5,532	116,819
Value of land and buildings £'000	3,265	6,233	1,750	692	247	371	12,558
Value of plant and machinery £'000	3,666	7,525	2,590	732	368	373	15,254
Horse-power of engines ordinarily in use .. h.p.	30,874	41,445	25,027	7,458	2,345	2,498	109,647

AUSTRALIA.

Items.	1938–39.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Number of factories	523	380	379	375	371	366
Number of persons employed ..	6,851	10,580	10,567	11,119	11,189	10,870
Salaries and wages paid .. £'000	1,570	8,416	8,680	9,568	10,068	9,995
Value of power, fuel, etc. used .. £'000	390	2,396	2,423	2,741	2,797	2,692
Value of materials used .. £'000	29,162	94,020	100,706	106,883	101,517	94,566
Value of production .. £'000	3,543	15,914	15,394	18,893	19,265	19,561
Total value of output .. £'000	33,095	112,330	118,523	128,517	123,579	116,819
Value of land and buildings .. £'000	2,880	9,365	10,037	11,188	11,985	12,558
Value of plant and machinery .. £'000	3,067	12,083	12,553	13,923	14,631	15,254
Horse-power of engines ordinarily in use .. h.p.	45,059	94,863	98,442	102,182	108,157	109,647

(ii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1957–58. These details are restricted to factory production and therefore exclude farm output.

BUTTER, CHEESE AND CONDENSED MILK, ETC., FACTORIES: PRODUCTION.
1957–58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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MATERIALS USED.

Whole Milk used in manufacture of							
Butter '000 gal.	139,155	401,722	145,097	29,886	30,786	55,345	801,991
Cheese '000 gal.	8,943	31,453	11,847	23,012	2,180	724	78,159
Condensed, Dried and other Milk Products '000 gal.	14,896	62,370	5,267	4	2,722	2,914	88,173
Sugar ton	996	15,172	(a)	..	(a)	(a)	18,005

PRODUCTION.
(Tons.)

Butter	29,939	86,236	32,280	7,032	6,807	10,624	172,918
Cheese (Green Weight)	4,042	14,840	5,175	10,495	1,017	326	35,895
Condensed Milk (Sweetened and Unsweetened)	(a)	43,408	..	..	(a)	..	47,140
Concentrated—							
Whole Milk	(a)	(a)	(a)	..	(a)	(a)	12,439
Skim Milk	(a)	(a)	(a)	..	(a)	..	6,285
Powdered Full Cream Milk—							
Spray	(a)	11,095	(a)	(a)	..	..	16,876
Roller	(a)	..	..	..	..	..	1,197
Infants' and Invalids' Food (including Malted Milk and Milk Sugar (Lactose))	(a)	(a)	..	..	..	(a)	13,977
Powdered Skim Milk—							
Spray	5,613	17,519	(a)	(a)	(a)	..	20,175
Roller .. ..	..	..	..	..	..	..	4,405
Buttermilk and Whey Powder	820	3,448	821	(a)	(a)	(a)	5,668
Casein	641	10,009	(a)	..	(a)	..	10,663
Ice Cream Mix—							
Powder	(a)	(a)	(a)	(a)	(a)	..	581
Liquid	(a)	(a)	(a)	..	..	..	5,022
Processed Cheese, Cheese Paste and Cheese Spreads (b)	(a)	(a)	(a)	..	..	..	14,407

(a) Not available for publication; figures are included in the total for Australia. (b) The cheese used in the manufacture of these products is included in Cheese (Green Weight) made as shown above.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXIV.—Farmyard, Dairy and Bee Products.

30. **Meat and Fish Preserving.**—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported is referred to in Chapter XXIII.—Pastoral Production. In recent years, there has been considerable expansion in the canning of meat and fish.

MEAT AND FISH PRESERVING.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	11	15	29	20	35	4	114
Number of persons employed ..	540	919	5,879	325	1,174	41	8,878
Salaries and wages paid .. £'000	464	919	5,908	240	1,115	44	8,690
Value of power, fuel, etc., used £'000	88	140	726	32	135	7	1,128
Value of materials used .. £'000	2,376	5,109	33,773	1,525	2,848	64	45,695
Value of production .. £'000	1,054	2,088	8,487	411	1,624	59	13,723
Total value of output .. £'000	3,518	7,337	42,986	1,968	4,607	130	60,546
Value of land and buildings £'000	274	894	3,356	221	1,888	77	6,710
Value of plant and machinery £'000	218	971	2,347	154	879	25	4,594
Horse-power of engines ordinarily in use h.p.	1,480	4,045	22,469	905	7,710	347	36,956

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	32	106	114	116	113	114
Number of persons employed ..	4,093	9,113	9,432	9,550	8,866	8,878
Salaries and wages paid .. £'000	1,180	7,395	8,327	8,704	8,366	8,690
Value of power, fuel, etc. used .. £'000	134	1,015	1,110	1,119	1,099	1,128
Value of materials used .. £'000	6,351	46,671	46,642	46,359	45,483	45,695
Value of production .. £'000	1,601	11,374	12,182	14,345	14,385	13,723
Total value of output .. £'000	8,086	59,060	59,934	61,823	60,967	60,546
Value of land and buildings .. £'000	1,966	4,500	5,403	5,934	6,241	6,710
Value of plant and machinery .. £'000	1,325	2,826	3,409	4,118	4,147	4,594
Horse-power of engines ordinarily in use h.p.	13,385	31,810	35,600	33,086	36,517	36,956

Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XXIII.—Pastoral Production.

31. **Breweries.**—(i) *Details of Industry.* The following table gives particulars of breweries in each State for the year 1957-58 and for Australia for a series of years. It should be noted, however, that the data shown are not strictly comparable throughout, owing to the inability or failure of some breweries to furnish a separate return for each branch of activity. Consequently the figures for some States include details of employment, wages, output, etc., not directly concerned with the brewing of beer, although associated with it. These extraneous activities include cooperage, malt wort, aerated waters, etc.

BREWERIES.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	6	6	6	3	3	2	26
Number of persons employed ..	1,911	1,872	878	(a)	(a)	(a)	5,909
Salaries and wages paid .. £'000	2,070	2,020	783	(a)	(a)	(a)	6,228
Value of power, fuel, etc. used .. £'000	548	360	228	(a)	(a)	(a)	1,479
Value of materials used .. £'000	91	7,292	2,226	(a)	(a)	(a)	22,146
Value of production .. £'000	6	4,114	2,581	(a)	(a)	(a)	17,271
Total value of output(b) .. £'000	15,763	11,766	5,035	(a)	(a)	(a)	40,896
Value of land and buildings .. £'000	3,745	2,978	2,956	(a)	(a)	(a)	11,797
Value of plant and machinery .. £'000	5,070	4,360	2,358	(a)	(a)	(a)	15,510
Horse-power of engines ordinarily in use h.p.	15,461	11,765	8,455	(a)	(a)	(a)	44,869

(a) Not available for publication; figures are included in the total for Australia.
Excise Duty.

(b) Exclud

BREWERIES—continued.

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	34	31	30	28	27	26
Number of persons employed	3,698	6,193	6,791	6,835	6,107	5,909
Salaries and wages paid £'000	1,215	5,325	6,272	6,588	6,196	6,228
Value of power, fuel, etc., used £'000	251	1,366	1,369	1,396	1,509	1,479
Value of materials used £'000	3,407	19,975	20,810	22,437	21,238	22,146
Value of production £'000	5,372	13,048	14,855	15,224	16,266	17,271
Total value of output(a) £'000	9,030	34,389	37,034	39,057	39,013	40,896
Value of land and buildings £'000	2,801	7,256	8,307	10,099	11,069	11,797
Value of plant and machinery £'000	2,737	7,681	10,295	12,917	14,863	15,510
Horse-power of engines ordinarily in use .. h.p.	23,231	38,803	42,359	44,908	45,268	44,869

(a) Excludes Excise Duty.

(ii) *Production, Consumption, Materials Used.* The quantity of ale, beer and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter increased each year to 109.2 million gallons in 1941-42. Under the Control of Liquor Order which operated between March, 1942, and March, 1946, the production of beer was restricted and consequently annual output remained static at about 100 million gallons from 1942-43 to 1944-45. Thereafter, production increased, and in 1958-59 amounted to over 228 million gallons.

The average annual consumption of ale, beer and stout prior to the economic depression of the early thirties exceeded 11 gallons per head of the population: it dropped to 7.3 gallons in 1931-32, increased to 13.8 gallons in 1941-42 and declined again to about 13 gallons during the period of control. The consumption per head had increased to 22.1 gallons by 1958-59.

The table below shows the quantities of materials used and the quantity and value of ale, beer (excluding waste beer) and stout brewed in each State during 1957-58:—

BREWERIES: MATERIALS USED AND PRODUCTION, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MATERIALS USED.							
Malt '000 bus.	2,562	2,038	787	(a)	(a)	(a)	6,640
Hops '000 lb.	1,962	(a)	527	(a)	(a)	(a)	4,409
Sugar ton	20,454	(a)	4,776	(a)	(a)	(a)	43,738

ALE, BEER AND STOUT BREWED (EXCLUDING WASTE BEER).

Quantity '000 gals.	94,199	66,752	(a)	(a)	(a)	(a)	226,449
Value (b) £'000	15,602	11,616	(a)	(a)	(a)	(a)	40,308

(a) Not available for publication; figures are included in the total for Australia. (b) Excludes Excise Duty.

32. *Wineries and Distilleries.*—The following table shows particulars of the operations of Wineries and Distilleries for each State during 1957-58 and for Australia for a series of years:—

WINERIES AND DISTILLERIES.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	31	28	5	74	22	..	160
Number of persons employed	224	361	165	1,245	71	..	2,066
Salaries and wages paid £'000	222	315	150	1,073	40	..	1,800
Value of power, fuel, etc., used £'000	115	105	62	141	3	..	426
Value of materials used £'000	1,461	1,048	393	4,391	155	..	7,448
Value of production £'000	638	1,488	314	2,028	101	..	4,569
Total value of output £'000	2,214	2,641	769	6,560	259	..	12,443
Value of land and buildings £'000	423	360	115	1,490	70	..	2,458
Value of plant and machinery £'000	505	292	366	1,112	64	..	2,339
Horse-power of engines ordinarily in use h.p.	1,328	2,207	777	6,873	363	..	11,548

WINERIES AND DISTILLERIES—*continued.*

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	135	164	158	155	157	160
Number of persons employed	1,133	1,981	2,022	1,908	2,027	2,066
Salaries and wages paid £'000	246	1,475	1,506	1,532	1,699	1,800
Value of power, fuel, etc., used £'000	58	365	387	368	423	426
Value of materials used £'000	1,421	5,721	4,885	5,074	6,461	7,448
Value of production £'000	811	3,254	2,846	2,890	3,704	4,569
Total value of output £'000	2,290	9,340	8,118	8,332	10,588	12,443
Value of land and buildings £'000	1,002	2,284	2,312	2,254	2,363	2,458
Value of plant and machinery £'000	916	2,108	2,170	2,099	2,348	2,339
Horse-power of engines ordinarily in use h.p.	4,396	11,275	11,054	11,159	11,412	11,548

33. Tobacco, Cigars and Cigarettes.—Particulars of establishments in which the manufacture of tobacco, cigars or cigarettes was carried on during 1957-58 are shown below for each State and for Australia for a series of years. There are no such factories in South Australia or Tasmania.

TOBACCO, CIGARS AND CIGARETTES.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	W. Aust.	Aust.
Number of factories	11	10	4	2	27
Number of persons employed	2,723	1,949	(a)	(a)	4,754
Salaries and wages paid £'000	2,461	1,696	(a)	(a)	4,203
Value of power, fuel, etc., used £'000	72	70	(a)	(a)	145
Value of materials used £'000	20,890	14,426	(a)	(a)	35,408
Value of production £'000	6,482	4,650	(a)	(a)	11,177
Total value of output(b) £'000	27,444	19,146	(a)	(a)	46,730
Value of land and buildings £'000	736	1,999	(a)	(a)	2,962
Value of plant and machinery £'000	1,899	2,088	(a)	(a)	4,156
Horse-power of engines ordinarily in use h.p.	6,821	3,343	(a)	(a)	10,586

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	30	36	34	33	29	27
Number of persons employed	5,544	4,757	4,707	4,622	4,630	4,754
Salaries and wages paid £'000	1,096	3,417	3,516	3,728	4,038	4,203
Value of power, fuel, etc., used £'000	34	151	158	128	127	145
Value of materials used £'000	7,081	26,835	28,825	31,227	33,535	35,408
Value of production £'000	2,685	8,341	9,745	9,244	10,999	11,177
Total value of output(b) £'000	9,800	35,327	38,728	40,599	44,661	46,730
Value of land and buildings £'000	1,042	1,822	1,504	1,867	1,764	2,962
Value of plant and machinery £'000	943	1,917	2,190	2,784	3,059	4,156
Horse-power of engines ordinarily in use h.p.	4,610	6,919	8,466	10,778	10,990	10,586
Leaf used—						
Australian (stemmed) '000 lb.	4,489	4,866	4,482	5,204	5,299	7,155
Imported (stemmed) '000 lb.	16,011	33,076	36,053	37,399	40,860	38,372
Tobacco made '000 lb.	16,305	23,400	21,466	18,836	18,917	18,192
Cigars made '000 lb.	238	143	151	132	114	119
Cigarettes made '000 lb.	6,731	18,303	22,859	27,162	30,513	32,748

(a) Not available for publication; figures are included in the total for Australia.
Excise Duty.

(b) Excludes

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw materials. Increased import duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31. During the 1939-45 War, about 4.7 million lb. of Australian-grown leaf was used annually. and the 1957-58 usage was 7.2 million lb. For further information see Chapter XXII.—Agricultural Production.

Imports of tobacco during 1957-58 comprised: manufactured tobacco, 402,388 lb., cigars, 86,165 lb., cigarettes, 370,842 lb., unmanufactured tobacco, 43,029,219 lb.; and in 1958-59 were 367,441 lb., 91,394 lb., 391,203 lb. and 38,671,462 lb. respectively.

34. **Sawmills, etc.**—The most important industry in Class X. is sawmilling. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the following table, together with plywood and veneer mills.

SAWMILLS AND PLYWOOD AND VENEER MILLS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	1,043	592	619	90	247	319	2,910
Number of persons employed ..	10,709	7,078	8,456	2,306	4,204	2,432	35,185
Salaries and wages paid .. £'000	8,647	6,112	6,138	1,948	3,193	1,894	27,932
Value of power, fuel, etc., used .. £'000	695	469	393	105	286	195	2,143
Value of materials used .. £'000	24,381	15,586	12,789	6,668	5,787	4,433	69,644
Value of production .. £'000	15,937	11,693	10,229	3,425	5,708	3,254	50,246
Total value of output .. £'000	41,013	27,748	23,411	10,198	11,781	7,882	122,033
Value of land and buildings .. £'000	5,012	3,117	1,889	2,275	808	823	13,924
Value of plant and machinery .. £'000	4,931	3,278	3,481	2,514	1,909	1,858	17,971
Horse-power of engines ordinarily in use h.p.	117,200	80,750	85,301	23,803	39,452	33,697	380,203

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories ..	1,639	3,117	3,033	3,025	3,000	2,910
Number of persons employed ..	19,056	35,448	36,631	37,102	35,835	35,185
Salaries and wages paid .. £'000	3,626	23,536	25,530	27,086	27,563	27,932
Value of power, fuel, etc., used .. £'000	225	1,639	1,805	1,938	2,056	2,143
Value of materials used .. £'000	8,441	53,908	61,073	65,618	66,817	69,644
Value of production .. £'000	5,762	39,799	45,319	47,042	47,928	50,246
Total value of output .. £'000	14,428	95,346	108,197	114,598	116,801	122,033
Value of land and buildings .. £'000	2,029	8,775	10,321	11,136	12,079	13,924
Value of plant and machinery .. £'000	2,777	12,504	14,896	16,201	17,086	17,971
Horse-power of engines ordinarily in use .. h.p.	89,843	336,951	359,786	371,003	378,902	380,203

The sawmill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in 1938-39 and by 1958-59 had risen to 1,480 million super. feet. Further reference is made to the sawmilling industry in Chapter XXV.—Forestry.

35. **Cabinet and Furniture Making and Upholstery.**—These industries constitute the principal manufactures in Class XI. The following table shows particulars for each State in 1957-58:—

CABINET AND FURNITURE MAKING AND UPHOLSTERY, 1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	536	542	236	120	150	60	1,644
Number of persons employed ..	6,033	4,743	2,252	1,506	1,009	386	15,929
Salaries and wages paid .. £'000	5,183	3,807	1,459	1,110	654	249	12,462
Value of power, fuel, etc., used .. £'000	127	94	37	30	18	5	311
Value of materials used .. £'000	9,067	5,868	2,591	1,765	1,209	360	20,860
Value of production .. £'000	8,287	6,424	2,273	1,685	1,070	424	20,163
Total value of output .. £'000	17,481	12,386	4,901	3,480	2,297	789	41,334
Value of land and buildings .. £'000	3,393	3,201	1,090	613	572	200	9,069
Value of plant and machinery .. £'000	864	811	348	267	168	57	2,515
Horse-power of engines ordinarily in use h.p.	14,792	14,431	7,472	5,112	3,363	1,277	46,447

36. **Printing Works.**—Printing and bookbinding rank high in importance among the industries of Australia and in 1957–58 afforded employment for 40,303 employees, and paid £36,096,000 in salaries and wages while the value of output amounted to £119,993,000. The first table below gives particulars of establishments engaged in general printing in each State for 1957–58. These establishments include those engaged in lithographic printing, bookbinding, paper ruling and linotyping and Government printing works. Establishments producing newspapers and periodicals are shown separately in the second table:—

GOVERNMENT AND GENERAL PRINTING WORKS, 1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	577	552	113	85	79	25	1,431
Number of persons employed ..	10,412	9,531	2,360	1,651	1,394	568	25,916
Salaries and wages paid .. £'000	9,258	8,409	1,660	1,297	1,009	466	22,099
Value of power, fuel, etc., used £'000	303	249	45	32	32	14	675
Value of materials used .. £'000	13,426	11,461	1,849	1,456	1,190	427	29,809
Value of production .. £'000	15,983	14,590	2,770	2,133	1,870	722	38,068
Total value of output .. £'000	29,712	26,300	4,664	3,621	3,092	1,163	68,552
Value of land and buildings £'000	6,088	6,305	926	738	715	312	15,084
Value of plant and machinery £'000	6,075	6,542	1,010	1,009	775	294	15,705
Horse-power of engines ordinarily in use h.p.	15,953	14,258	2,527	2,230	2,121	874	37,963

NEWSPAPERS AND PERIODICALS, 1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	179	106	58	37	22	5	407
Number of persons employed ..	6,946	2,924	2,253	1,127	731	406	14,387
Salaries and wages paid .. £'000	6,807	2,951	1,963	1,090	758	428	13,997
Value of power, fuel, etc., used £'000	285	115	79	35	40	8	562
Value of materials used .. £'000	11,346	7,268	2,977	2,033	1,314	361	25,299
Value of production .. £'000	12,321	5,224	3,720	2,097	1,624	594	25,580
Total value of output .. £'000	23,952	12,607	6,776	4,165	2,978	963	51,441
Value of land and buildings £'000	7,440	1,517	1,377	1,013	539	226	12,112
Value of plant and machinery £'000	6,109	1,790	1,428	616	640	250	10,833
Horse-power of engines ordinarily in use h.p.	14,815	9,862	5,968	3,438	2,554	803	37,440

37. **Paper Making.**—Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938–39 that any marked development occurred.

Plants producing pulp from eucalypt timber are operating in Victoria and Tasmania, whilst in South Australia pulp is being produced from locally-grown softwoods. The production of pulp rose from 6,000 tons in 1938–39 to 88,000 tons in 1946–47. It remained at about this level until 1949–50 but has since increased steadily to a total of nearly 208,000 tons in 1957–58.

The number of factories operating in 1957–58 comprised four in New South Wales, seven in Victoria, two in Queensland, one each in South Australia and Western Australia, and three in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States wrappings, other papers and boards. Particulars for this industry are shown in the following table.

PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56. (a)	1956-57. (a)	1957-58. (a)
Number of factories	7	18	20	17	17	18
Number of persons employed	1,961	7,179	7,611	7,480	7,903	8,088
Salaries and wages paid £'000	467	6,130	7,095	7,813	8,783	9,752
Value of power, fuel, etc., used £'000	201	2,048	2,560	2,735	2,996	3,131
Value of materials used £'000	1,096	15,198	17,474	18,963	22,419	22,903
Value of production £'000	1,005	15,451	18,294	17,330	19,383	23,910
Total value of output £'000	2,302	32,697	38,328	39,028	44,798	49,944
Value of land and buildings £'000	850	8,106	8,255	9,312	9,527	12,203
Value of plant and machinery £'000	1,713	16,810	18,050	18,640	18,141	21,835
Horse-power of engines ordinarily in use h.p.	31,548	141,373	157,948	164,123	170,382	174,557

(a) Excludes several establishments previously included, engaged in processing but not manufacturing paper.

38. **Rubber Goods.**—The following table shows particulars of this industry for each State during 1957-58 but excludes establishments engaged primarily in the retreading and repairing of tyres:—

RUBBER GOODS, 1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	42	54	12	8	2	..	118
Number of persons employed	6,833	6,254	1,096	(a)	(a)	..	15,017
Salaries and wages paid £'000	6,891	6,280	894	(a)	(a)	..	14,931
Value of power, fuel, etc., used £'000	929	991	116	(a)	(a)	..	2,131
Value of materials used £'000	16,163	15,910	2,799	(a)	(a)	..	36,044
Value of production £'000	9,359	12,001	2,014	(a)	(a)	..	24,782
Total value of output £'000	26,451	28,902	4,929	(a)	(a)	..	62,957
Value of land and buildings £'000	2,498	3,734	463	(a)	(a)	..	7,120
Value of plant and machinery £'000	3,181	4,028	385	(a)	(a)	..	7,839
Horse-power of engines ordinarily in use h.p.	53,832	55,214	8,215	(a)	(a)	..	120,602

(a) Not available for publication; figures are included in the total for Australia.

39. **Electric Light and Power Works.**—(i) *Details of Industry.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. For further information on this subject see Chapter VII.—Electric Power Generation and Distribution. Particulars of the industry for each State during the year 1957-58 and for Australia for a series of years are shown below:—

ELECTRIC LIGHT AND POWER WORKS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	72	51	60	38	87	11	319
Number of persons employed	5,558	3,247	1,605	(a)	1,070	(a)	12,833
Salaries and wages paid £'000	5,739	3,599	1,537	(a)	1,120	(a)	13,467
Value of power, fuel, etc., used £'000	15,729	11,153	5,817	(a)	3,432	(a)	40,261
Value of materials used £'000	2,300	677	978	(a)	288	(a)	4,740
Value of production £'000	26,283	13,706	5,261	(a)	3,318	(a)	55,514
Total value of output £'000	44,312	25,536	12,056	(a)	7,038	(a)	100,515
Value of land and buildings £'000	36,275	17,444	9,078	(a)	2,813	(a)	107,162
Value of plant and machinery £'000	74,893	63,659	32,964	(a)	16,646	(a)	222,542
Generators installed—Kilowatt capacity '000 kW	1,928	1,160	597	(a)	299	(a)	4,881

ELECTRIC LIGHT AND POWER WORKS—*continued.*

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	395	351	351	332	328	319
Number of persons employed	6,508	11,395	11,927	12,111	12,473	12,833
Salaries and wages paid £'000	1,977	10,308	11,457	12,497	13,571	13,467
Value of power, fuel, etc., used £'000	3,239	35,083	36,548	37,479	39,830	40,261
Value of materials used £'000	530	4,800	4,170	4,090	4,396	4,740
Value of production £'000	8,714	30,098	37,568	43,219	50,722	55,514
Total value of output £'000	12,483	69,981	78,286	84,788	94,948	100,515
Value of land and buildings £'000	8,388	47,369	60,120	73,688	102,318	107,162
Value of plant and machinery £'000	27,751	122,773	146,273	158,377	198,269	222,542

(a) Not available for publication; figures are included in the total for Australia.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 159.

(ii) *Production.* The generation of electricity in each of the States in 1938-39 and a series of years is shown in the following table:—

ELECTRIC LIGHT AND POWER WORKS: ELECTRICITY GENERATED.

(Million kWh.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39	1,948	1,223	387	256	307	567	4,688
1953-54	5,450	3,693	1,511	955	627	1,471	13,707
1954-55	5,951	4,152	1,658	1,119	703	1,589	15,172
1955-56	6,505	4,633	1,786	1,204	753	1,794	16,675
1956-57	7,008	5,037	1,937	1,315	782	2,210	18,289
1957-58	7,595	5,320	2,133	1,581	829	2,338	19,796
1958-59(a)	8,286	5,640	2,306	1,580	867	2,456	21,135

(a) Preliminary—subject to revision.

40. *Gas-works.*—(i) *Details of Industry.* Gas works are in operation in the majority of important towns in Australia. The following table shows particulars of gas-works in each State for the year 1957-58 and for Australia for a series of years:—

GAS-WORKS.

1957-58.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	37	27	16	3	3	2	88
Number of persons employed	1,393	1,372	359	(a)	184	(a)	3,783
Salaries and wages paid £'000	1,620	1,738	303	(a)	167	(a)	4,309
Value of power, fuel, etc., used £'000	2,051	417	43	(a)	104	(a)	2,720
Value of materials used £'000	5,935	5,703	1,079	(a)	618	(a)	15,030
Value of production £'000	5,957	2,608	916	(a)	340	(a)	10,577
Total value of output £'000	13,943	8,728	2,038	(a)	1,062	(a)	28,327
Value of land and buildings £'000	1,559	3,349	351	(a)	179	(a)	5,710
Value of plant and machinery £'000	6,920	12,554	2,116	(a)	1,585	(a)	26,823
Horse-power of engines ordinarily in use h.p.	18,393	15,840	2,482	(a)	1,204	(a)	44,913

AUSTRALIA.

Items.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of factories	107	98	97	95	94	88
Number of persons employed	2,931	4,141	4,103	4,087	4,138	3,783
Salaries and wages paid £'000	785	3,767	3,882	4,148	4,448	4,309
Value of power, fuel, light, etc., used £'000	251	2,244	2,291	2,297	2,591	2,720
Value of materials used £'000	1,872	15,249	15,187	15,350	15,598	15,030
Value of production £'000	2,694	8,121	9,103	9,272	9,894	10,577
Total value of output £'000	4,817	25,614	26,581	26,919	28,083	28,327
Value of land and buildings £'000	1,463	2,416	2,488	2,748	5,189	5,710
Value of plant and machinery £'000	7,498	17,235	19,134	19,828	27,667	26,823
Horse-power of engines ordinarily in use h.p.	17,905	30,055	33,389	42,082	44,373	44,913

(a) Not available for publication; figures are included in the total for Australia.

(ii) *Coal Used and Production.* The following table shows details for 1957-58:—

GAS-WORKS: COAL USED AND PRODUCTION, 1957-58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal used '000 tons	834	504	200	(a)	54	(a)	1,779
Gas produced million cu. ft.	22,506	16,684	3,153	(a)	1,420	(a)	47,655
Gas sold	18,732	14,295	2,701	(a)	1,223	(a)	40,394
Coke produced (b) '000 tons	429	199	76	(a)	21	(a)	832

(a) Not available for publication; figures are included in the total for Australia. (b) In addition 2,264,032 tons of metallurgical coke were made in Coke Works in 1957-58.

Since 1938-39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached 48,655 million cubic feet with an equivalent of 245,216 thousand therms (1 Therm=100,000 B.T.U.), in 1958-59.

CHAPTER VII.

ELECTRIC POWER GENERATION AND DISTRIBUTION.

This chapter is divided into three major parts. A.—Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; B.—The Snowy Mountains Hydro-electric Scheme; and C.—The origins, development, present situation and new projects of electrical systems in each Australian State and Territory. A Statistical Summary is appended.

It should be noted that the information contained in the chapter relates to situations existing and projects contemplated in 1959 and that it may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

A. INTRODUCTION.

1. **Distribution of Population and Location of Power Resources.**—The geographical pattern of electric power generation and distribution in Australia has been affected by two main influences—the distribution of population, with a resulting distribution of industry, and the location of fuel and water resources.

The Australian population increased between 1939 and 1959 from approximately 6,968,000 to 10,061,000. The two principal centres of population and industry, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of the Commonwealth materially influences the distribution of industrial population and the location of major electric power stations.

By far the most important source of energy used in the production of electric power in Australia is coal. At 30th June, 1958, thermal power equipment represented 76 per cent., hydro plant 19 per cent. and internal combustion equipment 5 per cent. of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 15 per cent. receiving an annual rainfall of 30 inches or over. This is confined largely to Tasmania and to the narrow coastal strip along the east coast. The possibility of establishing large hydro or steam stations in inland areas is, therefore, strictly limited by the lack of sufficient water.

The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales through to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 3,000,000 kW within the next 25 years. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount there available is only small compared with the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent. of the total Australian hydro-electric potential. Whereas on the mainland the chief source of energy is coal, water occupies this position in Tasmania.

2. **Electric Power Generation and Distribution.**—(i) *Ownership of Undertakings.* At the beginning of this century, Australia's electrical undertakings were carried on mainly by private enterprise, but some measure of governmental control was exercised through various electric light and power Acts. This legislation was designed to provide standards of safety, and to define the scope and obligations of the private organizations engaged in producing electric power for sale. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1959, all major

generating stations supplying the public were, in varying degrees, under the control of State statutory organizations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies within the various States. There are, however, still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas, however, it has been and remains the practice for central authorities to sell power in bulk to local distributing organizations which undertake reticulation.

In addition to the private, local government and statutory organizations which generate and/or distribute electricity for sale, there are numerous firms generating power for use in their own establishments, particularly those engaged in mining pursuits remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, and the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced.

(ii) *Power Production and Generating Capacity.* In the period between 1938–39 and 1958–59, production of electric power in Australia increased by over 350 per cent. from 4,688 to 21,135 million kilowatt hours.

Since the 1939–45 War, industry and commerce have expanded rapidly, many new houses have been built and the population has increased by approximately 36 per cent. These factors, together with the extension of electricity supplies to rural areas and the increased use of domestic electric appliances, have all contributed to bring about a position where the greatly increased demand for power cannot be satisfied by the existing installed capacity of central generating stations.

At 30th June, 1958, installed generating capacity in Australia totalled approximately 4.88 million kW compared with 1.62 million kW in 1939, an increase of 200 per cent. In 1957–58, each kW of installed capacity produced an average of 4,057 kWh compared with an average of 3,000 kWh in 1938–39. These figures are based on Commonwealth totals; figures for the States vary, depending on such factors as the distribution of demand, number of consumers, and type of equipment employed.

B. SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME.*

1. *Snowy Mountains Hydro-electric Power Act, 1949.*—In July, 1949, the Commonwealth Government passed the Snowy Mountains Hydro-electric Power Act establishing the Snowy Mountains Authority.

The functions and powers of the Authority as defined in the Act are:—

- (a) to generate electricity by means of hydro-electric works in the Snowy Mountains Area;
- (b) to supply electricity generated to the Commonwealth:—
 - (i) for defence purposes;
 - (ii) for consumption in the Australian Capital Territory.

The Authority also is empowered to supply to a State, or to a State Authority, electricity not immediately required for defence purposes or for consumption in the Australian Capital Territory.

To enable it to perform its functions, the Authority is given power to construct, maintain, operate, protect, manage and control works:—

- (a) for the collection, diversion and storage of water in the Snowy Mountains Area;
- (b) for the generation of electricity in that area;
- (c) for the transmission of electricity generated by the Authority;
- (d) incidental or related to the construction, maintenance, operation, protection, management or control of any works otherwise specified in the Act.

The Authority is constituted by a Commissioner appointed by the Governor-General. He is assisted by two Associate Commissioners also appointed by the Governor-General.

* See also Chapter VIII.—Water Conservation and Irrigation, page 248 of this issue and special detailed article in Official Year Book No. 42, pp. 1103–1130.

The Snowy Mountains Act is supported by a detailed Agreement between the States of New South Wales and Victoria and the Commonwealth in regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

2. *Geography of the Area.*—The Snowy Mountains Area in south-eastern New South Wales is the only part of the continent in which altitudes exceed 7,000 feet and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 120 inches a year in the vicinity of Mt. Kosciusko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy River, which flows southwards to Bass Strait.

3. *Description of the Scheme.*—(i) *General.* The Scheme involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the Scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development. The features referred to may be identified by reference to the map on page 223. For purposes of both power production and irrigation, it is necessary to provide a considerable degree of regulation of run-off and this will be achieved by the use of Lake Eucumbene formed by the construction of Eucumbene Dam to control the waters of the Eucumbene, Murrumbidgee and Tumut Rivers for the Snowy-Tumut Development and of the Snowy River for the Snowy-Murray Development.

(ii) *Snowy-Tumut Development.* This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee and Upper Tumut Rivers and their combined development through a series of power stations down the length of the Tumut itself. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene with an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River will be diverted into Lake Eucumbene by construction of a dam at Tantangara and a 10½ mile tunnel from Tantangara reservoir. From Lake Eucumbene, the water will flow through a 14 mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River where it will join the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9 mile tunnel. A feature of this 14 mile Eucumbene-Tumut Tunnel will be its use during periods of high flow to divert waters of the Tumut River from Happy Jacks Shaft or from Tumut Pond back to Lake Eucumbene for storage.

From Tumut Pond, water will be conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then conveyed by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Tumut 3 Reservoir at Lobs Hole also on the Tumut River.

Tumut 3 and Tumut 4 Power Stations will be constructed between Tumut 3 and Blowering Reservoirs. Blowering Dam is to be constructed by the State of New South Wales and will provide for the regulation of power station discharges for use for irrigation in the Murrumbidgee valley. The Authority will, however, construct another power station at the foot of this dam to make use of irrigation releases for power purposes.

(iii) *Snowy-Murray Development.* The principal features of the Snowy-Murray Development are the diversion of the main stream of the Snowy River by tunnel westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray and the development of power on the western slopes of the Alps. The main works of the development will be:—

- (a) The construction of a tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, will be the Scheme's largest stations and will have a combined capacity of 1,200,000 kW.

- (b) Construction of a tunnel from a small dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water will be returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.
- (c) The construction of a dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers, and the construction of a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend where it will join the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

Associated with the main Snowy-Murray diversion are power developments of the Upper Snowy and Upper Geehi Rivers. The Upper Snowy proposals provide for a series of three power projects utilizing the fall in the waters of the Snowy River from Kosciusko Reservoir at elevation 5,800 feet to Island Bend at elevation 3,900 feet. One of these, the Guthega Project, came into operation in February, 1955.

On the western side of the Divide, the waters of the Upper Geehi River and its tributary, Windy Creek, falling from an altitude of 5,200 feet to Geehi Reservoir at elevation 3,600 feet, will provide power in Windy Creek Power Station.

4. Utilization of Power.—*The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilize the potential of the Snowy Mountains Scheme most effectively, it is proposed to arrange the order of development so that the early stations will operate, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeds and as the load increases in magnitude.*

The Snowy Mountains Scheme is situated geographically about midway between the principal load centres of Sydney and Melbourne and will be connected to these centres by 330,000 volt transmission lines. It will, consequently, be in a strategic position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States.

Although most of the output from the Scheme will go to the States of New South Wales and Victoria, the Commonwealth Government also has the right to draw from the Scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's share of power and energy will be drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. After fulfilling the Commonwealth's requirements, the remaining power and energy from the Scheme will be divided between the States of New South Wales and Victoria in the ratio of 2 : 1.

5. Progress and Future Programme.—The first power station in the Scheme, Guthega, of 60,000 kW initial capacity, came into operation in February, 1955. This was followed by Tumut 1 Power Station, total capacity 320,000 kW, which came into operation progressively during 1959. Eucumbene Dam, which provides the major regulating storage for the Scheme, was completed in May, 1958, and water now being stored in Lake Eucumbene will be used later for power generation through the Tumut Power Stations. Completion of the Eucumbene-Tumut Tunnel in June, 1959, made possible the first major trans-mountain diversion of water. Construction is at present in progress on works to divert the Murrumbidgee River to Lake Eucumbene and the Tooma River to Tumut Pond Reservoir and on the second of the Tumut River Power Stations, Tumut 2, which, with a capacity of 280,000 kW, is planned to come into operation in 1962.

The next works to be constructed will be parts of the main Snowy-Murray Development and it is anticipated that the first production of power from the Murray 1 Power Station and the first trans-mountain diversion of the water from the Snowy River to the Murray will occur during 1966.

C. STATES AND TERRITORIES.

§ 1. New South Wales.

1. **General.**—In Official Year Book No. 39, an account was given, in some detail, of the origin and development of electricity generation and distribution in New South Wales, describing in particular the growth of the systems of the Sydney County Council, the Department of Railways, the Electric Light and Power Supply Corporation Ltd., the Southern Electricity Supply and the Clarence River County Council (now the Northern Rivers County Council). A description was also given of the legislation which constituted The Electricity Authority of New South Wales and the Electricity Commission of New South Wales as well as legislation existing prior to their constitution. At present, the three main Acts governing electricity supply in New South Wales are:—

- (i) The Local Government Act 1919 which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.
- (ii) The Electricity Development Act 1945–1957 which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.
- (iii) The Electricity Commission Act 1950–1954 which constituted The Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

2. **Organization.**—(i) *The Electricity Commission of New South Wales.*—The Commission, which was constituted under the Electricity Commission Act 1950–1954 consists of five members of whom one is a full-time Chairman. In its administration, the Commission is directly responsible to the Minister for Local Government.

When the Commission was established, 93 per cent. of the State's power requirements were generated by four bodies—the Sydney County Council, the Department of Railways, the Southern Electricity Supply (a division of the Department of Public Works) and the privately-owned Electric Light and Power Supply Corporation Ltd. The Electricity Commission Act 1950–1957 and the Electricity Commission (Balmain Electric Light Company Purchase) Act 1950 provided for the acquisition of the power stations and main transmission lines of those bodies. The transfer of the power stations and transmission lines of all these undertakings has now been effected. On 1st July, 1956, the Commission acquired the power station and bulk supply system of the Tamworth City Council, which supplied in bulk to a number of distributing bodies in the north of the State.

The main function of the Commission is the generation and transmission of electricity which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the government railways and tramways, and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources. An important exception is the hydro-electric potential of the Snowy Mountains region which is being developed by the Snowy Mountains Hydro-electric Authority, a Commonwealth Government body.

(ii) *Other Electricity Supply Authorities.* The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities—municipal and shire councils, electricity county councils (consisting of groups of shire and/or municipal councils) or private franchise holders. At 1st September, 1959, there were 68 of these supply authorities throughout the State of which 24 also generated part or all of their power requirements. The majority of country power stations are small oil engine plants which are becoming increasingly costly to operate. Consequently, they are gradually being closed down as the main transmission network is extended further afield.

Over the past few years, there has been a distinct trend towards the consolidation of supply areas, many of which have been regarded as being too weak individually to form satisfactory areas for distribution. Generally these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal areas grouped for electricity supply purposes only and administered by a county council of representatives elected by the constituent shire and municipal councils.

It is interesting to note that, of the 227 shires and municipalities in New South Wales, 203 are included in one or other of the 37 electricity county districts. Thirty-three of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council which at 30th June, 1959, was supplying 460,663 consumers in the Sydney Metropolitan Area. Unlike the other county councils, which are constituted under the provisions of the Local Government Act 1919, the Sydney County Council was specially constituted under the Gas and Electricity Act 1935.

(iii) *The Electricity Authority of New South Wales.*—The Electricity Authority was constituted under the Electricity Development Act 1945–1957, for the stated purpose of promoting and regulating the co-ordination, development, expansion, extension and improvement of electricity supply throughout the State. The Authority, which is a regulatory body only, consists of seven members of whom one is a full time Chairman. Like the Commission, it is responsible to the Minister for Local Government.

The main functions of the Authority are as follows:—

- (a) *Distribution.* Under the Act the approval of the Authority is required, *inter alia*, for the establishment or acquisition of an electricity trading undertaking by a local government council, for the granting or renewing by such a council of electricity franchise agreements or corresponding agreements with other councils, and for the giving or taking of bulk supplies of electricity. It also has power to formulate proposals for the establishment of county councils.

In exercising these powers, the Authority is mainly concerned with seeing that distributing authorities are sufficiently strong to provide an economical, efficient and satisfactory service. Its most important activities in this regard are in investigating supply areas and in making recommendations to the Minister for the consolidation of such areas into county districts. Many of the new county districts referred to earlier have been formed largely as a result of the Authority's advice.

- (b) *Rural Electrification.* The Authority administers the rural electricity subsidy scheme under which rural electrification throughout the State is progressing very rapidly (see para. 4, page 222).
- (c) *Safety.* The Electricity Development Act 1945–1957 contains provisions for the making of regulations relating to most aspects of safety and these powers are being used more and more extensively. Safety regulations now in force cover such matters as inspection of consumer's installations, licensing of electricians and electrical contractors, approval of electrical appliances, safety of linesmen and overhead line construction.
- (d) *Generation and Transmission.* The approval of the Authority is required for the establishment or extension of power stations and main transmission lines (with the exception of those of the Electricity Commission).

3. *Generation and Transmission.*—(i) *General.* Except in the Snowy Mountains district and in one or two other areas, New South Wales is lacking in major water power potential and for the generation of electricity the State is, therefore, dependent mainly on steam power stations. During the year ended 30th June, 1959, coal-fired stations generated 93.0 per cent. of the State's energy requirements, hydro-electric stations 6.4 per cent. and internal combustion plants 0.6 per cent.

The proportion of power generated in the hydro-electric stations will increase considerably with the future plant development of the Snowy Mountains Scheme by the Commonwealth Government but at no stage of its development will the Scheme supply more than 15 per cent of the State's energy requirements. Coal-fired steam power stations, therefore, will continue to supply the greater part of requirements for the foreseeable future.

(ii) *Major Generating Stations.* In New South Wales, the generation of electricity has followed the general world trend towards large centralized power stations supplying large areas through inter-connected transmission networks. The greater part of the coal-fired generating plant is now concentrated within the bounds of the industrial centres of Sydney, Newcastle and Wollongong, where most of the population is also located.

As at 30th June, 1959, the major power stations of the State system of the Electricity Commission of New South Wales and their installed capacities were as follows:—*Steam*—Bunnerong "A" and "B" (Sydney), 375,000 kW; Pyrmont "A" and "B" (Sydney), 220,000 kW; White Bay (Sydney), 172,000 kW; Ultimo (Sydney), 80,000 kW; Balmain (Sydney), 107,000 kW; Port Kembla, 60,500 kW; Zarra Street (Newcastle), 50,000 kW

Tallawarra (Lake Illawarra), 120,000 kW; Wangi (Lake Macquarie), 210,000 kW; Wallerawang (near Lithgow), 90,000 kW; Lithgow, 27,000 kW; Maitland, 20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; Tamworth, 27,000 kW; *Hydro*—Hume (near Albury), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 52,550 kW. The total installed capacity of the Electricity Commission's system was 1,721,050 kW.

It will be seen, therefore, that the greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, capacity 50,000 kW and at Tamworth, capacity 27,000 kW.

(iii) *Interconnected Network.* Some 97 per cent. of the population of New South Wales is supplied by distributing authorities who obtain power in bulk from the Electricity Commission's network. This system of 330 kV, 132 kV, 66 kV, 33 kV and 22 kV transmission lines covers most of the eastern portions of the State, extending geographically as far as 300 miles inland from the coast and linking the power stations with the load centres in this area.

In May, 1959, Australia's first 330 kV transmission line and 330 kV substation were put into service. The line is 85 miles long and connects the Snowy Mountains Hydro-electric Authority's Upper Tumut switching station with the new 330/132 kV substation located at Yass for the distribution of power through the Commission's interconnected system in the South-west portions of the State. The transformer capacity of 162,000 kVA at this new substation will be doubled before the end of 1959 and later will be raised to a designed capacity of 486,000 kVA.

At 30th June, 1959, there were also in service 1,340 miles of 132 kV lines (including 250 miles designed and built for 330 kV operation at a later date), and over 2,500 miles of 66 kV and lower voltage lines (including 314 miles built for eventual operation at 132 kV). The total capacity of transformers installed in the Commission's system exceeds 3,000,000 kVA.

(iv) *Separate Systems and Total State Installed Capacity.* There are a number of separate systems and isolated plants which have not yet been interconnected with the main network and which at 30th June, 1959, had an aggregate installed capacity of 27,923 kW. Some councils along the Victorian border receive bulk supplies from Victorian authorities.

A number of local government bodies have undertaken the development of independent power stations. Of these the more important are:—The Northern Rivers County Council which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 25,750 kW and the North-West County Council which has established a 12,500 kW steam power station on the Ashford coalfield.

The Tamworth system which formerly supplied power to an extensive district in the north of the State from Tamworth power station through 66 kV and 33 kV transmission lines was interconnected with the main system in June, 1958, by a newly constructed 330 kV transmission line from Muswellbrook to Tamworth (79 miles). This line is now being operated at 66 kV but will be raised to higher voltages later.

The aggregate installed capacity for the whole of the New South Wales systems and isolated plants was 1,827,741 kW as at 30th June, 1959.

(v) *Future Development.* The major new thermal stations now being developed on the coalfields will become the main base load centres for the northern, southern and western regions respectively. At Vales Point on Lake Macquarie, near Newcastle, work has commenced on a large thermal station with a planned capacity of about 1,000,000 kW. The initial installation will comprise two 200,000 kW generating units. At Wangi, also on Lake Macquarie, four units with a combined capacity of 210,000 kW are operating and work is proceeding to install two further units which will bring the capacity of this station to 330,000 kW.

At Tallawarra on Lake Illawarra, near Wollongong, work on extensions involving the installation of two 100,000 kW generating units is progressing. When completed, the capacity of this station will be 320,000 kW. At Wallerawang, three 30,000 kW units are operating and work is proceeding on the installation of a further three units which will increase the capacity of the station to 240,000 kW.

Hydro-electric stations are being installed at the Warragamba Dam (50,000 kW) in conjunction with the major new source of Sydney's metropolitan water supply and at Keepit Dam (6,000 kW) near Gunnedah.

Development of the 330 kV network to extend from the Snowy Mountains hydro-electric power stations in the south, through the load centres of Wollongong, Sydney and Newcastle, to Armidale in the north is expected to be rapid in the next few years. In addition to the eighty-five miles of 330 kV line between the Snowy Mountains Hydro-electric Authority's Upper Tumut switching station and the Commission's 330 kV substation at Yass, other elements of the 330 kV system totalling 250 miles have already been built and have been placed in service at lower voltages for the present. A further section of this system is to be built between a new 330/132 kV substation immediately south of Sydney and a new 330 kV switching station at Dapto for the connexion of the extensions at Tullawarra Power Station. This work will permit full 330 kV operation of the whole of the link between the Upper Tumut switching station and the new 330 kV substation immediately south of Sydney when the next large Snowy Mountains hydro-electric power station is completed in 1961.

New construction of 132 kV and 66 kV transmission lines will extend the system geographically within the next next two years to South Grafton in the north, Burren Junction in the north-west and Hay and Cobarr in the west. The mileage of these and other lines of this voltage to be built within this period exceeds 400 miles.

(vi) *Hydro-electricity.* The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains Area (*see* Snowy Mountains Hydro-electric Scheme, p. 216). Apart from this area, there are in operation the new hydro-electric station at the Hume Dam (50,000 kW), the 20,000 kW station at the Burrinjuck Dam, and the 7,500 kW station at the Wyangala Dam. The output of all these stations is dependent on the release of water for irrigation.

Of the remaining hydro installations, the largest is that of the New England County Council on the Oakey River, a tributary of the Macleay River, which has a capacity of 5,250 kW.

The Northern Rivers County Council operates a hydro-electric power station on the Nymboida River, a tributary of the Clarence River. This station has a capacity of 4,650 kW.

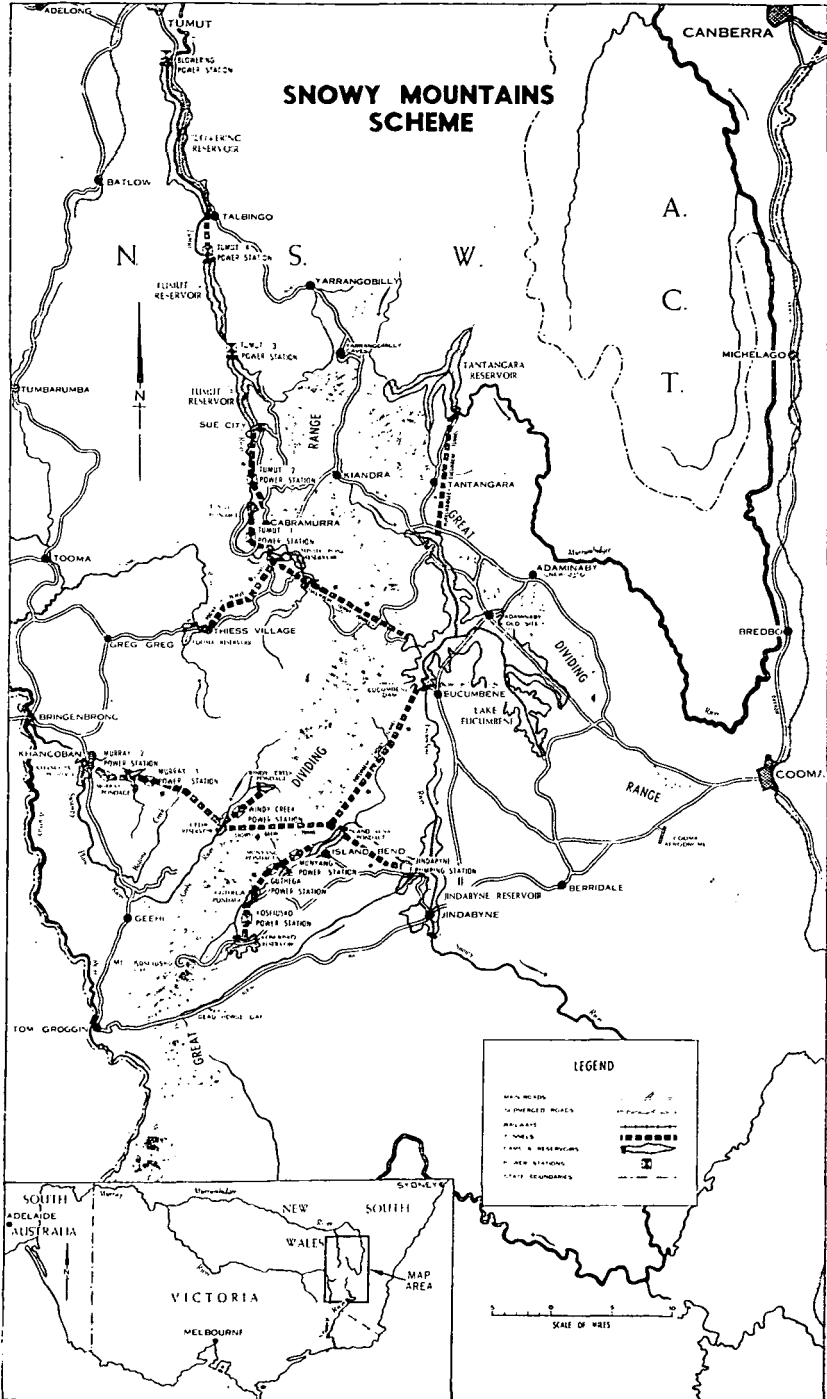
The Bega Valley County Council has constructed a hydro-electric scheme at Brown Mountain utilizing the headwaters of the Bemboka River. This installation has a capacity of 3,950 kW.

The Mullumbimby Municipal Council has in operation two 150 kW hydro units on Wilson's Creek, a tributary of the Richmond River.

4. Rural Electrification.—When The Electricity Authority of New South Wales was constituted in 1946, one of its first tasks was the devising of a scheme for subsidizing the cost of rural electrification. At that time, only 16,000 New South Wales farms were being served with electricity—less than one-quarter of those within reasonable reach of public electricity supply systems. In August, 1946, a subsidy scheme was approved by the Government and put into immediate operation. Under this scheme, local electricity suppliers receive subsidies from the Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines. In order that the funds available for subsidy purposes might be used to the best possible advantage, the scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first. This was achieved by fixing a limit to the cost eligible for subsidy. Originally this limit was £250 per consumer when averaged over the cost of the whole extension but the limit was raised to £400 in December, 1953. Some subsidy was paid on higher cost extensions but the excess over an average of £400 was not subsidized.

To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State, the subsidy scheme has been extended (from May, 1959) to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of £600–£800.

Between August, 1946, and October, 1959, about 33,500 miles of new distribution lines in rural areas were erected at a cost of over £22,500,000. These lines served 43,000 farms and 27,300 other rural consumers. During the same period, the percentage of farms connected had been raised from 22 per cent. to 82 per cent. At 31st October, 1959, the Electricity Authority was committed to the payment of £10,059,464 in subsidies, of which £4,302,907 had actually been paid.



§ 2. Victoria.

1. *General.*—In Official Year Book No. 39, a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

2. *State Electricity Commission of Victoria.*—(i) *Power and Fuel Authority.* Since it began operating in 1919, the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves about 97 per cent. of the population through a supply net-work covering more than two-thirds of the populated area of the State.

Development of Victoria's State electricity system is based on the utilization for both power and fuel of Victoria's extensive brown coal resources in the Latrobe Valley in eastern Gippsland, with supplementary development of the hydro-electric potential of north-eastern Victoria. Victoria shares with New South Wales in the electricity generated at Hume hydro station on the River Murray. Victoria is also entitled to one-third of the electricity from the Snowy Mountains Hydro-electric Scheme, after the Commonwealth has taken the power it needs for the Australian Capital Territory and within the Snowy Mountains area. Output from the Snowy scheme was made available to Victoria in the latter half of 1959. Two-thirds of the State's electricity is generated from brown coal, either used in its raw state or manufactured into higher quality fuel in the form of brown coal briquettes. Ninety-eight per cent. of the brown coal and all the briquette fuel are supplied by undertakings which the Commission itself owns and operates. Output of brown coal in 1958–59 from the three open cuts at Yallourn, Yallourn North and Morwell totalled 11,500,864 tons, of which 8,302,571 tons were used in the Commission's own power stations, and 2,458,048 tons were manufactured into 642,590 tons of brown coal briquettes, 17 per cent. of the briquette output then being used for electricity production in metropolitan and provincial steam power stations.

The two functions, generation of electricity and production of fuel, are closely integrated. Apart from the large proportion of brown coal and briquette fuel directly consumed in the power stations, the actual process of briquette manufacture results also in large-scale generation of electricity, since the steam needed for processing the raw coal in the briquette factory is first used to operate turbo-generators in associated power plant which functions as part of the briquette works.

(ii) *Status and Powers.* Constituted by Act of the Victorian Parliament, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose, it is vested with power to erect, own and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, and all interest and other charges incurred in the service of its loans and other capital commitments.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo. For the accommodation of its employees at Yallourn, the Commission owns and administers the town of Yallourn and owns large housing estates in the surrounding area. In the Kiewa hydro-electric works area, it has built the two townships of Mount Beauty and Bogong, municipal administration of the former now being vested in the Shire of Bright.

(iii) *Electricity Supply.* At 30th June, 1959, consumers in Victoria served by the State system totalled 831,068. Outside the State system, there were 21,220 other consumers served by local country undertakings. The system supplies all the Melbourne metropolitan area and nearly 1,500 other centres of population.

The Commission sells electricity retail in all areas except part of the metropolitan area, where it sells in bulk to eleven municipal undertakings which operate as local retail supply authorities under franchises granted before the Commission was established. Bulk supply is also being provided at present to several New South Wales municipalities and irrigation settlements bordering the River Murray. Rural electrification is now about 86 per cent. completed, the over-all plan to extend the State system to all populated regions of Victoria having made rapid progress during recent years. Consumers served by the State system outside Melbourne metropolitan area (347,191) have more than doubled, and the number of farms connected to supply (41,748) has almost trebled in the past 10 years. Of the new consumers connected to supply each year, over three-quarters are outside the metropolitan area. New farm connexions average about 3,000 a year.

The Commission's retail consumers totalled 649,704 at 30th June, 1959. Retail supply is administered through the metropolitan branch, seven extra-metropolitan branches (namely Ballarat, Eastern Metropolitan, Geelong, Gippsland, Midland, North Eastern and South Western) and the North Western Region, which comprises Bendigo branch and the two sub-branches based on Mildura and Horsham (Wimmera). At 30th June, 1959, there were branch and district supply offices in 79 towns in Victoria.

(iv) *Electricity Production.* Electricity generated in the State system totalled 5,534 million kWh in 1958-59 or 99 per cent. of all the electricity generated in Victoria. The system comprises 21 steam, hydro and internal combustion power stations within Victoria. Inclusive of generator capacity available to the Victorian system from outside the State, the total installed generator capacity at 30th June, 1959, was 1,319,000 kW. Nineteen of these power stations, totalling 1,294,000 kW are interconnected, and feed electricity into a common pool for general supply. The major power station in this interconnected system is the brown coal burning power station at Yallourn, which alone generates nearly half of Victoria's electricity. Other power stations in the interconnected system comprise the new brown coal burning power station at Morwell, steam stations in Melbourne (Newport, Richmond and Spencer-street), Geelong (two stations) and Ballarat (two stations); hydro-electric stations at Kiewa (two stations) and Eildon, and on the Rubicon and Royston Rivers (four stations), near Eildon; and three internal combustion stations at Shepparton, Warrnambool and Hamilton (Hamilton power station was closed down on 31st July, 1959). All are Commission owned, except Spencer-street power station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system. Also linked with the Victorian interconnected system is the hydro station at Hume dam on the River Murray. This power station is operated by the Electricity Commission of New South Wales. Output and operating costs are shared by Victoria and New South Wales.

In meeting the total demand on the system, which fluctuates throughout the day and from month to month, each group of stations in the interconnected system, whether steam, hydro or internal combustion, is assigned a predetermined function dependent upon the availability of power from each group and the over-all economics of generation. The various stations are utilized in the combination that will meet the system load most economically at a given time. This procedure results in an arrangement of the system on the following general lines:—

- (a) Yallourn power station, owing to the low cost of extraction and ample supply of raw brown coal, is a base load station, and is operated continuously at its maximum economic capacity. The new Morwell power station, which like Yallourn, burns raw brown coal, is also a base-load power station.
- (b) Metropolitan and provincial steam stations and provincial internal combustion stations situated close to load centres are designed to operate as peak load stations to assist in meeting the heavy, short period load. Pending the completion of extensions to Yallourn power station, a substantial proportion of the base load on the system is carried by Newport power station.
- (c) Hydro stations are operated in accordance with the availability of water. Their primary function is to provide peak load power. As the basic purpose of Eildon reservoir is to provide water for irrigation, generation of electricity is mainly governed by irrigation requirements, but provision has been made for limited operation of the power station in winter when electricity requirements are at their heaviest and there is no irrigation demand for

water. Hume hydro station also operates on water released for irrigation and no regular output of electricity can be expected during the non-irrigation months in the winter.

Commission power stations not yet connected with the rest of the State system comprise the two steam stations (Redcliffs and Mildura) serving the Mildura region.

(v) *Transmission and Distribution.* The electrical transmission and distribution system in the State supply network at 30th June, 1959, comprised 29,803 miles of power lines, 14 terminal receiving stations and almost 21,000 distribution sub-stations. Main transmission is by 220 kV, 132 kV and 66kV power lines which supply the principal distribution centres and also provide interconnexion between the power stations. The 330 kV line connecting the Victorian system with the Snowy Mountains Scheme via Dederang, near Kiewa, was still under construction at 30th June, 1959—for completion later in 1959. The 220 kV system now extends from Yallourn to Melbourne, Melbourne to Kiewa and Kiewa to Shepparton. Two further sections of the 220 kV system—Melbourne to Colac and Shepparton to Bendigo—are operating temporarily at 66 kV. From Yallourn there are also 132 kV transmission lines to Melbourne. The 66 kV lines radiate from Melbourne to Geelong and main centres in the South West, Ballarat and Horsham, and Bendigo and Charlton, and also to Benalla and other main centres in the North East. Further 66 kV lines radiate from Yallourn to main centres in Gippsland.

(vi) *Future Development.* In conformity with its dual responsibility for producing and supplying Victoria's electricity and producing a large proportion of the State's solid fuel, the Commission's developmental programme is in two parts, which are, however, closely dependent one upon the other. The major part of this programme is for the development of the brown coal undertakings at Yallourn and Morwell in the Latrobe Valley and the erection of a large new brown coal burning power station (Hazelwood) near Morwell; and the second and lesser part for the development of the hydro undertaking at Kiewa. At the same time, the Commission will continue its programme of rural electrification, extension of the State system (particularly in western and north western Victoria) and reinforcement of supply by extending the 220 kV system from Bendigo north-westwards to Kerang and Redcliffs, near Mildura, and also to Ballarat and Geelong where connexion will be made with the existing Melbourne-Colac line, thus completing a 220 kV circle around Central Victoria.

Yallourn power station is being greatly enlarged. Four 50,000 kW generators in two extensions have been added recently. A third extension of 240,000 kW capacity is due for completion in 1962. Enlargement of the power station will require a corresponding expansion in production of brown coal at Yallourn. New dredger plant will increase annual output at the Yallourn open cut to over 12 million tons in 1962. This will complete the Yallourn power generation development, except for the eventual replacement of 175,000 kW of old plant probably with one generating unit of about 200,000 kW capacity.

At Morwell, six miles from Yallourn, the Commission is developing a second brown coal power and fuel project. The new project comprises a large brown coal open cut and a major new power station operating in association with a large new briquetting plant. Some of the electricity generated at Morwell is needed to operate the briquette works, but most of the output of the power station is transmitted through Yallourn to metropolitan terminal stations for general supply through the State network. The power station began operation at the end of 1958. Output for general supply will increase progressively to 151,000 kW in 1963. Briquette production is scheduled to start in the latter part of 1959. It will increase to 1,500,000 tons a year in 1961. Annual output of brown coal at the Morwell open cut will increase progressively to over six million tons over the same period, and will be further expanded in subsequent years to an ultimate annual output of about 19 million tons to meet the fuel requirements of the new Hazelwood power station, proposals for which were submitted to the Victorian Parliament in the latter months of 1959. Hazelwood power station is designed for an ultimate capacity (in about 1970) of 1,200,000 kilowatts in units of 200,000 kW each, the first to be in service not later than 1964. The power station will be located south of Morwell, and brown coal fuel will be supplied by belt conveyor direct from the Morwell open cut.

(vii) *Hydro electricity.* At the Kiewa hydro-electric undertaking, where two stations, totalling 87,600 kW capacity, are now in service, work is in progress on a third power station of 96,000 kW capacity, which is due to have the first two of its six generators operating

before the middle of 1960 and alternators in service in 1961. Work was completed in 1959 on the construction of Rocky Valley Reservoir, which is designed to provide the main high level storage for the operation of the Kiewa power stations.

3. **Local Country Electricity Undertakings.**—At 30th June, 1959, there were 34 independent electricity undertakings in country centres in Victoria generating and distributing their own local supply. Most of these undertakings were in the far south west, west and north west of the State. Under the State Electricity Commission's rural electrification programme, almost all the independent local country undertakings will ultimately be acquired and absorbed into the State system. For the year 1958–59, the total production of the independent undertakings was 44 million kWh. The number of consumers at 30th June, 1959, was 21,220. The operation of the independent undertakings is governed by the Electric Light and Power Act, 1958, which the State Electricity Commission administers.

§ 3. Queensland.

1. **General.** In Official Year Book No. 39, an account is given of the growth of electricity generation in Queensland, with particular reference to the City Electric Light Co. Ltd. of Brisbane (now the Southern Electric Authority of Queensland), the Brisbane City Council and the Toowoomba Electric Light and Power Co. Ltd.

The first of these organizations supplies a large part of Brisbane's electric power requirements, and those of a considerable rural area in the south-eastern corner of the State, from a modern power station at Bulimba, a suburb of Brisbane. Capacity is 95,000 kW at Bulimba "A", plus 10,000 kW, "packaged plant" at Abermain (near Ipswich), 120,000 kW at Bulimba "B" and 120,000 kW at Tennyson. The output from a 3,200 kW hydro-electric unit installed at Somerset Dam near Brisbane is fed into the Southern Electric Authority system. With these plants, 723 million kWh were generated in 1957–58 while the total number of the Authority's consumers at 30th June, 1958, was 113,483.

The Brisbane City Council's electrical undertaking and power production in 1957–58 had an installed capacity of 160,000 kW plus a 10,000 kW "packaged plant" erected at Tennyson, units purchased and generated amounted to 608 million kWh, and there were 128,846 consumers connected.

The Toowoomba Electric Light and Power Co. Ltd., which commenced operations in 1905, has now been absorbed by the Southern Electric Authority of Queensland.

The generation and distribution of electric power in Queensland had, until the last decade, tended to lag behind developments in this field in other States of Australia. The comparatively slow growth in the production and consumption of electricity can be attributed to some extent to the absence, prior to 1938, of a central statutory authority constituted to undertake the functions of co-ordinating, unifying and controlling the production and transmission of electric power. In addition, Queensland's vast area, coupled with a low population density, made large-scale rural electrification, elsewhere than in the south-eastern portion of the State, which surrounds the major centres of industry and population, an uneconomic proposition.

Before establishment of the Regional Electricity Boards in 1945, no attempts had been made to unify or co-ordinate electricity supplies outside of south-eastern Queensland, and rural electrification, apart from reticulation within certain townships, was practically unknown.

2. **Royal Commission on Generation and Distribution of Electric Power in Queensland, 1936.**—On 5th December, 1935, the Queensland Government appointed a Royal Commission to inquire into and make recommendations on matters relating to the generation and distribution of electric power in Queensland. An account of the results of its investigations and of the alternative proposals put before it will be found on page 1182 of Official Year Book No. 39.

3. **The State Electricity Commission of Queensland.**—The State Electricity Commission of Queensland commenced to function during January, 1938. Its main powers were to secure a proper and efficient supply of electric power, review tariffs, grant licences to supply electricity, secure the safety of the public, and control and advise electrical undertakings generally. It was thus a controlling authority as distinct from an operating authority. Details of its growth and development may be found in earlier issues of the *Official Year Book* (see No. 44, p. 284). Since its inception, the Commission has made considerable progress in its task of developing the State's power resources and promoting a more widespread use of electric power. The degree of utilization of electrical energy in Queensland now compares favourably with other States in the Commonwealth.

4. **Regional Electricity Boards.**—With a view to facilitating the control and development of electricity supply in areas of low population density and those having a predominantly primary producing economy, the Government, in 1945, passed the Regional Electric Authorities Act providing for the creation of regions of electricity supply and the constitution of Regional Electricity Boards.

Soon after passage of the Act, four Regional Boards were constituted, namely, Wide Bay, Capricornia, Townsville and Cairns. A fifth Board, entitled South Burnett, became an operating authority in October, 1947, but on 1st July, 1951, was absorbed in the Wide Bay Regional Board and this organization is now known as the Wide Bay-Burnett Regional Electricity Board.

As from 1st March, 1957, a further Regional Board became operative, covering the areas of Mackay, Sarina, Proserpine and adjacent rural areas under the name of Mackay Regional Electricity Board.

Supply throughout this Region is provided from the central generating station at Mackay and accelerated electrical development of this area is being undertaken. The Townsville Regional Electricity Board's area was extended in July, 1957, to include that of the Bowen electricity undertaking. The local authority areas of Thursday Island and Cook were included in the Cairns Regional Electricity Board's area from 1st July, 1956, and 1st July, 1957, respectively. As from 1st January, 1958, the Capricornia Region was extended to include the Shires of Bauhinia, Belyando, Emerald and Peak Downs in Central-West Queensland.

Activities of the original four Regional Boards in 1957–58 and 1958–59 compared with operations of the stations located in regions in 1945–46, and totals for Queensland as a whole are shown in the following table:—

QUEENSLAND: REGIONAL OPERATIONS.

Region.	1945–46.		1957–58.		1958–59.	
	Units Generated.	No. of Consumers.	Units Generated.	No. of Consumers.	Units Generated.	No. of Consumers.
	Million kWh		Million kWh		Million kWh	
Wide Bay-Burnett	13.7	11,467	79.0	28,003	81.2	29,513
Capricornia	19.5	11,196	128.8	21,743	146.9	22,417
Townsville	25.8	11,612	(a) 97.1	25,812	(a) 99.7	26,929
Cairns	22.7	9,722	150.5	19,930	174.8	21,088
<i>Total</i> ¹	<i>81.7</i>	<i>43,997</i>	<i>455.4</i>	<i>95,488</i>	<i>502.6</i>	<i>99,947</i>
Total Queensland ..	487.0	194,429	1,852.4	365,048	b 2,019.1	b 380,500

(a) Excludes 28 m.kWh purchased from Tully Falls power station in 1957–58 and 49 m.kWh in 1958–59.

(b) Estimated.

Generator capacity of the five existing Regional Boards installed at 30th June, 1959, was:—Wide Bay-Burnett, 37,500 kW; Capricornia, 54,743 kW; Townsville, 40,646 kW; Mackay, 12,500 kW; Cairns, 91,080 kW; total 236,469 kW.

5. Creation of Southern Electric Authority of Queensland.—A further major step in electrical progress, comparable with that taken when the agreements with the City Electric Light Co. Ltd. and Toowoomba Electric Light and Power Co. Ltd. were first entered into, was taken by the passing of the Southern Electric Authority of Queensland Act of 1952. This Act constituted the City Electric Light Co. Ltd. as a public authority to be known as the Southern Electric Authority of Queensland.

Two Government representatives are included on the Board of the new Authority, whose establishment prepares the way for the complete amalgamation, in due course, of the electrical undertakings serving the south-eastern Queensland area of supply.

As from 1st July, 1954, the Southern Electric Authority acquired the Toowoomba Electric Light and Power Co. Ltd., thus bringing this company's area of supply under its control. The Southern Electric Authority is now responsible for the electrical supply and development of a consolidated area of 19,386 square miles.

6. Hydro-electricity.—Behind the costal plain of the Cairns-Ingham area is an extensive plateau, the elevation ranging from 2,000 to 3,000 feet, although isolated peaks exceed 4,000 feet. The short coastal streams which rise on the plateau descend rapidly into deep gorges, which they have cut through the divide. With heavy monsoonal rainfall on their catchments and concentrated fall, these streams represent a considerable potential source of power, but storage, which can be provided in most cases, is essential to control the very variable flow.

There is a pronounced wet season from December to March, with a dry season from July to November. Average annual rainfall varies greatly with geographic location, being 178 inches at Deeral (midway between Cairns and Innisfail) but only 34 inches at Cashmere (120 miles south-west of Innisfail).

In 1935, a small hydro-electric power station was placed in service at Barron Falls, ten miles north-west of Cairns. The station comprises three 2,000 h.p. turbines, each driving a 1,320 kW generator, and with a hydraulic head of 410 feet. An output of 25 million kWh was attained during 1958–59, the station operating essentially as a run-of-river station without any significant water storage capacity being available. Power is fed at 22 kV into the main network at Mareeba and Cairns.

The hydro-electric power scheme at Tully Falls was commissioned in September, 1957, with an initial plant installation of 36,000 kW. Work has now been completed on the installation of a further two 18,000 kW sets, making a total installation of 72,000 kW. An output of 135 million kWh was obtained from this station during 1958–59. Water controlled by Koombooloomba Dam at present under construction on the upper Tully River is diverted, a short distance above Tully Falls, through a tunnel and steel penstocks to an underground power station in the gorge at the foot of the falls operating with Pelton driven generators under a head of 1,485 feet. Power is transmitted to the load centres at Cairns and Innisfail by means of 132 kV transmission lines. Future automatic power plants upstream and downstream from Tully Falls consisting of two 7,500 kW sets under 405 feet head and one 5,400 kW set under 230 feet head are under consideration. The combined peak load for the three plants would then be 69,000 kW. Interconnexion of the Tully scheme with the Townsville area, which is also being served by a thermal station, was completed in February, 1958, by the provision of a 160 mile double circuit 132 kV transmission line. On present estimates, power from the completed Tully scheme will be sufficient to supply the inter-connected area until 1963 when additional power will be required.

The construction of a new peak load power station at Barron Falls to provide a firm (dry year) output of 60,000 kW at 25 per cent. load factor (i.e. firm output of 131 million kWh per annum) has been authorized by the Queensland Government. Orders have been placed for the major items of plant and construction of the scheme has commenced. This scheme will ensure an adequate supply of power to the Cairns and Townsville areas until 1967.

The completed scheme will provide for an underground power station below the Barron Falls containing two 30,000 kW Francis turbines, operating under a head of 920 feet. Water will be carried from a pond above the Falls by horizontal tunnel and pressure tunnel to the power house. The existing weir will be raised by 8 to 16 feet for this purpose. An earth and rock fill dam will be built on Flaggy Creek, a tributary of the Barron, to provide storage capacity for the scheme, although initially spare storage capacity at the Tinaroo Falls Dam will be used.

Other major schemes which are currently being investigated include North Johnstone-Russell Rivers (32,000 kW); Beatrice-North Johnstone Rivers (9,000 kW); South Johnstone River (25,000 kW); Herbert River (90,000 kW).

In the Townsville Region, the Commission, acting on behalf of the Burdekin River Authority, investigated the proposed hydro-electric development of the Burdekin. The Scheme envisaged a power plant immediately below the Burdekin Falls Dam to operate under an average head of 225 feet.

In relation to other projects, the Scheme is not as favourable economically as a power production project alone but, as a joint power production, irrigation and flood mitigation scheme, it has considerable potentialities. An estimated output of 80,000 kW at 50 per cent. load factor would be available.

The State Electricity Commission, in conjunction with other Government Departments is carrying out an extensive investigation into the development of hydro-electric resources. It is estimated that full development of the hydro-electric potential of North Queensland would provide the equivalent of over 300,000 kW of power at 50 per cent. load factor or approximately 1,300 million kWh a year.

A number of small hydro-electric projects are being investigated in other parts of the State. On the Broken River near Eungella (50 miles west of Mackay), a site exists for the establishment of a peak load hydro-electric power station, and this is being examined. The construction, in the future, of a major dam on the Dawson River at Nathan Gorge (near Cracow) in the Capricornia Region for irrigation purposes, would permit the installation of a small hydro-electric power station at this site if the power produced could be economically absorbed. A plant of 3,200 kW capacity has been installed to utilize the outflow from Somerset dam on the Stanley River a few miles above its confluence with the Brisbane River.

7. New Capacity.—(i) *Regions.* To provide for development of the electric power resources in the regions, the State Electricity Commission formulated a ten-year programme divided into two five-year periods. In the first, it was planned to erect main transmission systems to connect existing power stations located within the regions and supplement generating capacity by the construction of new stations. Work on this section of the plan in the original Regional Board areas is now virtually complete. In the second, the transmission system will be extended to more sparsely settled areas, the ultimate purpose being the provision of "ring" transmission lines throughout each region and inter-connection between the regions.

A number of new generating stations have been commissioned as follows:—Wide Bay (Burnett Region), of which 15,000 kW was placed in service during September, 1951, and 7,500 kW in 1954, while a further set of 15,000 kW was installed in 1957. Rockhampton (Capricornia Region) of which 22,500 kW was placed in service during September, 1952, and a further 15,000 kW in May, 1956, and a further 15,000 kW in December, 1958; and Townsville (Townsville Region) of which 22,500 kW was commissioned in July, 1953, and a further 15,000 kW in January, 1956. Each of these stations will have an ultimate installed capacity of 52,500 kW and be steam-operated. In the Cairns Region, the Tully Falls hydro-electric power station has been completed with 72,000 kW installed capacity.

The Tully Falls scheme (*see* para 6, p. 230) was planned to link with the Townsville Regional Electricity Board's system for the purpose of marginal supply, and construction of this interconnection was completed by the close of 1957. Preliminary work has commenced on the construction of a further hydro-electric scheme on the Barron River which should be completed by June, 1963, and will add 60,000 kW to the available hydro-electric generation capacity in the area. The first stage of the scheme's development is estimated to cost £5,850,000, and initially full use will be made of available storage capacity at Tinaroo Falls Dam, thus enabling construction of a £5,000,000 storage dam on Flaggy Creek to be postponed for a number of years.

At Mackay, where supply was first given in 1924, a Regional Electricity Board has now been constituted and a 66 kV transmission line to Proserpine has been erected. The generating capacity of the station under the control of this Regional Board is 12,500 kW, and a further 3,000 kW of diesel plant is being installed. At Bowen, the Town Council, which established the service in 1952, has now transferred control of its area to the Townsville Regional Electricity Board, and transmitted supply is provided by a 66 kV transmission line. During 1935, a small (3,800 kW) power house—Australia's first underground hydro station—was placed in service at Barron Falls near Cairns. When the Cairns Regional Board was established during 1946, operation of the station passed to the Board's control and now comprises part of its generating plant.

(ii) *Western Queensland.* In western Queensland, where a number of small isolated generating stations supply power to some of the larger towns, the Commission has evolved a plan to increase and modernize existing capacity. It involves installation of small internal combustion units ranging in size from 100 kW to 600 kW according to the load likely to be experienced, and conversion from direct to alternating current supply. The Government has assisted the scheme by subsidy—a feature of electrical development in Queensland. Assistance provided for regional electrical development comprises subsidies of up to one-third of capital cost on annual loan charges, with special subsidies of up to 50 per cent. for authorities in the larger towns outside the Regions.

In addition to improving supplies to the larger western towns, a scheme has been devised for electricity supplies for smaller towns in the western districts, where consumers range from 50 to 200. Subsidies of 65 and 60 per cent. will apply in those cases where the number of consumers supplied is less than 100 and 200, respectively. This plan has now been virtually implemented and at 30th June, 1958, 28 townships in western Queensland had been provided with electricity. The power is being supplied by small oil driven generating sets with automatic controls which can be run with a minimum of operating attendance. In addition, investigations of the possibility of supply have been carried out at a number of other small centres.

Coal-burning gas producers have been successfully commissioned for public electricity supply purposes at Longreach, Clermont, Dalby, Blackall and Barcaldine and further extension of their use in western Queensland is predicted, as lower tariffs and more efficient production of electricity should follow their use.

(iii) *South-eastern Queensland.* To increase the availability of electric power in the south-eastern area of the State, the two major generating authorities, in conjunction with the Commission, have power station projects under construction which are designed to place in service, by 1968, new generating units totalling 400,000 kW. The Southern Electricity Authority is continuing the development of the station known as Bulimba "B" on a site adjacent to Bulimba "A". 120,000 kW had been installed to 30th June, 1959, and the ultimate capacity may reach 180,000 kW. At Tennyson in the Brisbane area, the Brisbane City Council has constructed a new power station with an initial capacity of 60,000 kW which ultimately may be increased to 180,000 kW. At 30th June, 1959, generating plant of 120,000 kW was in service at this new station. To supplement capacity pending operation of these projects, "packaged" generating units totalling 20,000 kW were obtained from overseas and commissioned early in 1953, one 10,000 kW set having been installed at Tennyson and another 10,000 kW set at Abermain near Ipswich.

The power stations of the two major generating authorities at New Farm and Bulimba are interconnected at 33 kV.

§ 4. South Australia.

1. *General.*—An account referring to the companies generating electric power in South Australia prior to the establishment of the Adelaide Electric Supply Co. Ltd., and describing the development of that company's activities, was given in Official Year Book No. 39. Also included in the account was some reference to the early measures of public control over electricity supply in South Australia and the extent to which they were applied, and also to the inquiries into the activities of the Adelaide Electric Supply Co. Ltd. in 1932 and 1935.

Following upon an inquiry instituted by the Government in 1943, relative to measures for increasing electricity supply to the metropolitan area and country districts, the Electricity Act 1943 was passed which, *inter alia*, established the South Australian Electricity Commission. However, until the State assumed full responsibility for the supply of electric power, this body was not able to do much more than exercise the formal functions conferred on it by the Act.

2. *The Electricity Trust of South Australia.*—Early in 1946, legislation was passed transferring the assets of the Adelaide Electric Supply Co. Ltd. to the newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supplies. This legislation

provided that the Trust should take over the powers vested in the South Australian Electricity Commission under the 1943 Act, which, after establishment of the Trust, would cease to exist. In addition to the powers specified in the Adelaide Electric Supply Company's Acts 1897-1931, the Trust may, *inter alia*, supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other persons who generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other persons, and give or receive supplies of electricity in bulk.

3. Capacity and Production.—There are three main categories of organizations generating electric power in South Australia, namely:—(a) Governmental, which include the Electricity Trust; (b) Local Authorities, e.g., municipal and district councils, and Renmark Irrigation Trust; and (c) Other, including individuals and firms primarily engaged in generating power for sale, firms generating power primarily for their own use but supplying outside consumers, and firms generating power solely for their own use.

In 1957-58, total installed capacity in South Australia was 402,386 kW, an increase of 48,556 kW on the year before. The units generated totalled 1,580 million kWh compared with 1,315 million kWh in the previous year.

Of the total installed capacity, the Electricity Trust of South Australia operated plant with a capacity of 365,600 kW. It is thus the most important authority supplying electricity in the State. There were approximately 264,000 ultimate consumers of electricity, of whom 238,362 were supplied directly by the Trust and approximately 11,000 supplied indirectly by the Trust (i.e. through bulk supply). Its major steam stations were Osborne "A" (70,000 kW), Osborne "B" (180,000 kW) and Port Augusta "A" (90,000 kW) while the balance of the capacity controlled consists of house sets and regional stations at Port Lincoln and Mount Gambier.

No hydro-electric potential exists in South Australia. Steam generating units comprise 95 per cent. of installed capacity and the balance is internal combustion equipment. Until recently, all fuel consumed in the thermal stations was obtained from sources outside the State, and at times power restrictions were necessary owing to the inadequacy of supplies.

4. Leigh Creek and other New Capacity.—With a view to reducing the dependence on external sources of fuel, steps have been taken to produce local coal and to install plant to use it. Fairly extensive deposits of low-grade sub-bituminous coal are obtainable at Leigh Creek, about 360 miles north of Adelaide. Under the Electricity Trust of South Australia Act Amendment Act 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30th June, 1958, 687,114 tons of coal were sold. Of this amount, the electricity undertaking used 668,128 tons.

In order to cope with the rapidly increasing demand for power, the Electricity Trust is constructing a second power station at Port Augusta, to be known as Port Augusta "B". This station will have a capacity of 240,000 kW making the combined capacity at Port Augusta 330,000 kW. The first 60,000 kW turbo-alternator is expected to be commissioned about March, 1960, and the station is scheduled for completion about 1964. Leigh Creek coal will be used exclusively. The power station will be interconnected with the metropolitan area by two 275 kV transmission lines. Consideration is now being given to the establishment thereafter of some pumped-storage hydro plant, as being possibly the most economic way of handling the peak loads of the system.

It is possible that an installation of this type of plant would serve the increasing needs of the system until the late 1960's. In addition, at Port Lincoln and Mount Gambier, the Trust operates steam power stations of 5,000 kW and 16,800 kW capacity, respectively, the former burning fuel oil and the latter either wood waste or fuel oil.

§ 5. Western Australia.

1. General.—Electrical undertakings in Perth and Fremantle formerly owned by the Perth City Council, the Western Australian Government Electricity Supply, the Fremantle Municipal Tramways and Electric Lighting Board and other metropolitan, municipal and road board supply authorities have been taken over by the State Electricity Commission of Western Australia. For information on the early history of electricity supply in the metropolitan area, see Official Year Book No. 39, page 1189.

2. **Metropolitan Undertaking.**—Statistics relating to activities of the Metropolitan undertaking are shown in the following comparative table.

WESTERN AUSTRALIA: METROPOLITAN UNDERTAKING.

(Including Bunbury Power Station).

Particulars.	1938-39.	1957-58.	1958-59.
Plant capacity kW	57,000	$\left\{ \begin{array}{l} a \text{ 25,000} \\ b \text{ 160,000} \end{array} \right.$	.. .. .
Maximum load kW	33,000	124,000	133,000
Units generated Million kWh	137	571	605
Fuel used per unit (kWh) generated lb.	2.77	1.55	1.56
Coal used tons	168,722	389,423	414,919

(a) 40 cycles.

(b) 50 cycles.

As a result of a separate inquiry conducted at the same time as the early investigations into the proposed new station at South Fremantle, a recommendation was made favouring conversion of the East Perth 40 cycle system to the British and Australian Standard Frequency of 50 cycles per second. The recommendation was adopted and implemented by making the frequency of generation at South Fremantle 50 cycles and installing at East Perth a frequency changer able to convert 25,000 kW of energy from one frequency to the other.

3. **Kalgoorlie.**—In Kalgoorlie, the Municipal Council supplies approximately 3,800 consumers with either direct or alternating current. A diesel station of 1,825 kW generating capacity provides direct current to the limit of its capacity. Alternating current is purchased from Kalgoorlie Power Corporation and retailed by the Council to some consumers, while portion is passed through a rectifier to convert it to direct current. Primarily established to supply power to the gold mines, the Kalgoorlie Electric Power and Lighting Corporation operates a steam station of 11,000 kW and maintains a 22 kV line of 21 miles to the Celebration mine. Alternating current is also supplied to about 1,400 consumers. The Corporation's undertaking generates approximately 35 million kWh per annum and boilers are fired by Collie coal.

4. **General Pattern of Electricity Supply.**—The pattern of the generation and distribution of electric power in Western Australia consists of a number of isolated systems each supplying a particular area. Except in the metropolitan area and in the area embraced by the South-West Power Scheme (see para. 6 below), where in both cases electricity supply is in the hands of the State Electricity Commission of Western Australia, local authorities are generally responsible for the supply of electricity for domestic and industrial purposes. In the area between the Great Southern Railway from Northam to Albany and the west coast, however, the State Electricity Commission has now constructed transmission lines to give central station supply to the towns and their surrounding rural areas. In addition, there are several mining companies which generate electricity for use in their mines. In order to cater for the expected growth in demand, the capacity of the State's major generating stations is being increased.

The system in the Metropolitan area has been interconnected with the Bunbury area by means of two 132 kV transmission lines.

The main load centre of the State is, of course, the Perth-Fremantle area into which is concentrated the major portion of the State's population and industry. The inter-connexion between the Metropolitan and Country systems is, however, expected to lead to a gradual decentralization of load.

5. **The State Electricity Commission of Western Australia.**—(i) *Origin and Aims.* In order to ensure an organized and co-ordinated future growth of electricity generation and distribution throughout the State, the Government introduced a Bill in 1945 to establish the State Electricity Commission, which, together with an Electricity Bill, became law early in 1946. Under these Acts, the Commission was given power, *inter alia*, to secure the ultimate co-ordination of all State or other electrical undertakings in the State, to construct and operate power stations and transmission lines and purchase as a going concern and carry on the undertaking of any supply authority. Under the Electricity Act, which should be read in conjunction with, and is subject to, the State Electricity Commission Act, no person or organization is permitted to construct or extend an electricity supply undertaking without

consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and any proposals are not inconsistent with the Commission's plans.

(ii) *New Projects.* Since its inception in 1946, the Commission has proceeded with the task of increasing generating capacity in an endeavour to cater for a greatly increased demand for power. Long-range plans were formulated to interconnect the south-western portion of the State with the Perth-Fremantle system. One of its most important and immediate problems was to increase the capacity of the generating equipment serving Perth and Fremantle. During the 1939-45 War years, it became evident that the growth of demand for electric power would necessitate provision of additional generating equipment in the metropolitan area as soon as possible. Accordingly, the Government Electricity Supply authority commenced design work for a new station of 50,000 kW capacity. Contracts were let in 1945 and construction commenced on a site selected at South Fremantle. Responsibility for completion of this project was given to the Commission under the Act of 1946. As it was considered that an even larger station would be required, provision was made for the installation of two additional units giving an ultimate capacity of 100,000 kW. Steam is furnished by eight boilers designed to use pulverized coal from Collie, which is located about 120 miles from the station. At the end of 1954, four units had been placed in service and the output was being fed into the metropolitan system.

At the East Perth power station, a new 30,000 kW unit has been commissioned and an additional boiler installed. A 25,000 kW unit, commissioned in 1938 (generating 40 cycles) is also available at this station.

6. South-west Development.—At the request of the Government, the Electricity Advisory Committee, in 1945, submitted a report recommending, amongst other things, that a national power scheme for the south-west be proceeded with. The plan provided for acquisition of the existing Collie power station and installation of additional generating capacity, construction of a power station at Bunbury and interconnexion of the south-west scheme with the metropolitan system. On 12th October, 1946, the State Electricity Commission acquired the Collie power station, which prior to 1946 was owned and operated by the Collie Power Company Limited. At the date of acquisition, the station's installed capacity was 5,000 kW, comprising two steam units. The capacity of the station was increased to 12,500 kW in 1952.

Since 1950, the Commission has acquired a number of electrical undertakings from municipal bodies and private organizations in the south-west area and is proceeding with arrangements for the purchase of others. In August, 1951, the first portion of the South-West Power Scheme was officially opened at Collie and many of the south-west towns have now been connected by transmission line to the Collie Power Station. When completed, a system of power lines will reticulate electricity over an area of approximately 25,000 square miles. The first two 30,000 kW units and associated boilers at Bunbury Power Station have been placed in service. Work is proceeding as programmed on two similar units to give the Station an ultimate capacity of 120,000 kW. The first section was officially declared open on 23rd August, 1957.

Diesel stations of 5,400 kW capacity at Albany serve the towns of Albany, Denmark, and Mount Barker in the extreme south of the State.

§ 6. Tasmania.

1. General.—A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Other factors contributing to the low costs are that rainfall is distributed fairly evenly throughout the year, with comparatively small yearly variations. The cheap power has led to the establishment in Tasmania of several large electro-chemical works with high load factor, and as a consequence the system load factor is also very high (at present 67.3 per cent.).

For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, see Official Year Book No. 39, pages 1192-3.

2. **The Hydro-Electric Commission.**—(i) *Present System.* In 1929, the Government passed the Hydro-Electric Commission Act, under which was established the Hydro-Electric Commission and which vests in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania and authorizes it to develop and reticulate electric power for all purposes. In 1930, this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department.

The first project undertaken by the Commission was the Shannon Power Development which utilizes 258 feet of the difference in level between the Great Lake (Miena Dam) and Waddamana forebay. A small earthen dam diverts the outflow from the Great Lake through 2½ miles of canal and then by two pipelines to the Shannon power station, where 10,500 kW was added to the system in 1934. After passing through Shannon power station, the water discharges into the Waddamana canals to be used again at the Waddamana power stations.

In 1933, it was decided to proceed with the Tarraleah Power Development. In this scheme, the waters of the River Derwent are picked up near Butler's Gorge by a canal and conveyed 14 miles to the pipeline forebay 982 feet above the power station on the Nive River where three 15,000 kW generators were placed in service in 1938. Shortly afterwards two more 15,000 kW units were added and a sixth machine installed in 1951 brought the total installed capacity at Tarraleah power station to 90,000 kW. Storage is provided at Lake St. Clair and at Lake King William, an artificial lake created by the 200-ft. high Clark Dam across the Derwent at Butler's Gorge. In the Butler's Gorge power station at the foot of the dam, a single 12,200 kW generator was installed in 1951. To increase the security of the system and to permit variable seasonal loading of Tarraleah station, a second canal from Clark Dam to Tarraleah was completed in 1955.

Early in 1939, it was decided to make full use of the Great Lake storage by increasing the peak capacity at Waddamana. War conditions impeded progress, but by 1945 two 12,000 kW generators had been installed in a new power station, Waddamana "B", adjacent to the original station Waddamana "A". A third unit installed in 1946 and a fourth in 1949 brought the total to 48,000 kW. To enable a full peak capacity to be maintained at both Waddamana stations a duplicate of the original Waddamana canal was constructed during 1947-48.

Between 1930 and 1948, the generating capacity of the system was increased by 121,500 kW but the demand for power continued to increase rapidly and it was obvious that a greatly accelerated construction programme would have to be undertaken. Construction of the Tungatinah Power Development was started in 1948 and the Trevallyn Power Development in 1949.

The Tungatinah scheme draws water from three separate catchment areas located on the Central Plateau between the Great Lake (Shannon-Waddamana) and Lake St. Clair (Butler's Gorge-Tarraleah) catchments and control of practically the whole run-off from the Central Plateau has now been effected.

The principal catchment utilized by the Tungatinah scheme is drained by the Nive River. A 120-ft. high dam at Pine Tier diverts the waters of the Nive through 6½ miles of canal system to the first of a chain of four artificial lakes, created by dams constructed across the outlets from natural marshes and linked by large open cuts. From the southernmost lake, a tunnel and then five steel pipelines lead to the five 25,000 kW generators in Tungatinah power station, 1,005 feet below on the Nive River just upstream from Tarraleah station on the opposite bank of the river. Power was first generated at Tungatinah in mid-1953 with a capacity of 125,000 kW. Water from the smaller Clarence River catchment is brought into one of the lakes in the Tungatinah system by means of a woodstave pipeline 5½ miles in length and the third catchment area utilized is the Lake Echo-Dee River catchment. Regulation of this catchment has been achieved by construction of a dam at Lake Echo to provide the main storage reservoir for the Tungatinah scheme, construction of the Lake Echo power station (one 32,400 kW generator) to utilize 568 feet of the difference in level between Lake Echo and Dee Lagoon, and the diversion of water from Dee Lagoon through 2 miles of tunnel to the main Tungatinah system.

The Trevallyn Power Development, the first constructed by the Commission outside the Central Plateau region, was undertaken primarily to meet the requirements of the aluminium industry. The waters of the South Esk River are diverted through 2 miles of

tunnel and pipeline to a power station on the Tamar River near Launceston. Three 20,000 kW generators were installed in mid-1955 and a fourth unit has since brought the total capacity of Trevallyn Power Station to 80,000 kW.

(ii) *New Capacity.* The Hydro-Electric Commission is engaged in a progressive construction programme comprising the completion of the Wayatinah "A" project and the construction of the Catagunya and the Great Lake Power Developments. Since 1948, the generating capacity of the system has been increased by 312,850 kW to a total of 485,350 kW and present construction is planned to bring this total to 917,000 kW by 1966. There will still remain very considerable resources for future development, as it is considered that at least 2,400,000 kW can be economically developed.

The Wayatinah Power Development, now nearing completion, will comprise two power stations and headworks to utilize water which is, in the main, already regulated and which has been used several times. The volume of water available is much larger and the head smaller than in the case of other major stations. All the water which has passed through Tarraleah or Tungatinah stations will be diverted, by a weir across the Nive River below Tarraleah, through 4 miles of tunnel and then steel pipes to Wayatinah "A" power station lower down on the Nive River where 83,700 kW will be installed by 1960.

A dam across the River Derwent, just below its junction with the Nive, has created a small lake into which will flow all the water from Wayatinah "A" plus water collected by the Derwent below Clark Dam. One mile of tunnel and one mile of pipeline will lead the water to Wayatinah "B" power station on the Derwent three-quarters of a mile below its junction with the Florentine River. The lower station, Wayatinah "B", was constructed first and was completed in 1957. Installed capacity is 32,250 kW.

In the Catagunya Power Development, now under construction, a pre-stressed concrete dam on the River Derwent, four miles below Wayatinah "B", will divert the water through a flume and then steel pipes to the Catagunya power station on the left bank of the river about one-third of a mile downstream where 48,000 kW will be installed by 1962.

The Great Lake Power Development, now in the preliminary stages of construction, is the most recent project to be undertaken by the Commission. In this scheme, the water of the Great Lake, by its diversion in the direction of the most precipitous fall, will be used to much greater advantage than at present. Eventually reaching the South Esk River it will be used again through the generators of the Trevallyn Power Station.

The works will consist of an intake at the Great Lake, a four mile headrace tunnel through the Western Tiers, one mile of surface pipeline on the face of the Tiers, a vertical shaft leading to the power station some 500 feet underground, a two and a half mile tailrace tunnel discharging into a canal, thence through a regulating pond into a channel flowing into the Lake River, a tributary of the South Esk River.

In this development, the power will be generated by the fall of water through a vertical distance of 2,750 feet to an underground power station where generators of 300,000 kW capacity will be installed. The station will be known as Poatina Power Station. A further section of the scheme includes the provision of a dam at Arthur Lakes to increase greatly the storage of the system and a pumping station and a conduit discharging into the Great Lake so that water from this catchment will be utilized through the Poatina Power Station.

There is every indication that the demand for power in Tasmania will continue to increase. The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme.

3. Power Usage by Secondary Industry.—The abundant and comparatively cheap supplies of electricity and other natural resources attracted to Tasmania a number of important secondary industries for which energy costs constitute a significant proportion of the total cost of production. Some of the more important organizations and their continuous power demands when plant is operating are as follows:—Electrolytic Zinc Company of Australasia Ltd., 72,735 kW at Risdon and 4,100 kW at Rosebery; Australian Aluminium Production Commission, 34,000 kW; Australian Newsprint Mills Ltd., 20,700 kW; Associated Pulp and Paper Mills Ltd., 14,900 kW; Australian Commonwealth Carbide Company Ltd., 7,800 kW; and Goliath Portland Cement Company Ltd., 3,350 kW.

§ 7. Commonwealth Territories.

1. *Internal Territories.*—(i) *General.* The electricity supply undertakings at Canberra in the Australian Capital Territory and at Darwin, Katherine, Tennant Creek and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

(ii) *Australian Capital Territory.* The supply authority is the Canberra Electric Supply. Supply was first established at Canberra during 1915 and was met from local steam plant. Connexion to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Total population served with electricity at 30th June, 1959, was 46,000 and the total number of ultimate consumers was 13,753. Average annual rate of increase of demand since 1947–48 has been 14.13 per cent. and the figure for energy was increased by 13.65 per cent.

During the year 1958–59, the bulk electricity purchase was 103,442,000 kWh and the maximum demand incurred was 26,400 kVA.

(iii) *Northern Territory.* At Darwin, supply was established by the Town Council in October, 1934, but later, during April, 1937, responsibility for generation and supply was transferred to the Northern Territory Administration. The power station is equipped with diesel generating plant of 6,770 kW capacity, two new 970 kW diesel sets being installed in 1955–56 and an additional 1,380 kW diesel set during 1957. At Alice Springs, the Power Station is equipped with diesel generating plant of 1,982 kW capacity, two 230 kW diesel sets being installed in 1956–57 and an additional 520 kW diesel set during 1957–58.

At Katherine, the power station is equipped with a small diesel generating plant of 450 kW capacity. The diesel station at Tennant Creek was closed down in 1957, supply for the township being purchased in bulk from Peko Mines No Liability.

The total number of ultimate consumers served in the Territory was 4,238 in 1958–59.

In 1956–57, the Department of Works selected a site on the water front of Darwin for a 15,000 kW steam driven generating set. This steam station is being designed to supply Darwin and suburbs when the present diesel station has reached its maximum economical capacity. Construction work has been undertaken on preparation of the site and is planned to be completed during 1959–60.

2. *External Territories—Papua and New Guinea.*—Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is vested in the Administration of the Territory of Papua and New Guinea, whose headquarters are located at Port Moresby. The total generating capacity of the diesel engine driven generating sets amounts to 6,389 kW and of the hydro operated sets 3,230 kW. The generating capacity of the power plants at the main centres is—Port Moresby, diesel 2,303 kW, hydro, 3,000 kW; Rabaul, 1,300 kW; Lae, 1,286 kW; Madang, 410 kW; Samarai, 300 kW; Kavieng, 114 kW; Wewak, 150 kW; Lorengau, 76 kW; Goroka, hydro, 200 kW; Aiyura, hydro, 30 kW; and 450 kW distributed among outstations where generating capacity is between 5 kW and 60 kW. The townships of Wau and Bulolo are still supplied by the Bulolo Gold Dredging Co., which operates a hydro-electric plant of 5,500 kW. This power is produced mainly to supply alluvial dredges and, in addition, now supplies power to the plywood mill at Bulolo.

The number of ultimate consumers served was 3,584 in 1955–56, 4,258 in 1956–57, 4,755 in 1957–58 and 5,329 in 1958–59.

Vast hydro-electric potential exists in New Guinea and it has been estimated at 15,000,000 kW, but because of the island's location, absence of large load centres and lack of industrialization, only a small proportion could, at present, be economically developed.

In 1950, the Commonwealth Government joined with the British Aluminium Co. Ltd. of London to locate and develop large capacity hydro-electric schemes in New Guinea. A new company was formed, known as New Guinea Resources Prospecting Co. Ltd., with a capital of £100,000. The Commonwealth Government held 51 per cent. of the shares and had a controlling interest on the board of five members. It was recently announced that the Commonwealth Government had sold its interest to a company which has been formed by Consolidated Zinc Pty. Ltd., and the British Aluminium Co. Ltd. both of London. This company is continuing investigations into the hydro-electric potential with the object of treating bauxite, which is to be mined in the Gulf of Carpentaria.

The following hydro-electric schemes are now in operation: Port Moresby—at Rouna on the Laloki River, generating sets have been established with an initial capacity of 3,000 kW, with provision for expansion to 5,500 kW as stage 2, and to 17,500 kW as stage 3. The power station came into operation in January, 1957. The present project utilizes only portion of the power available from the Laloki River and the economic ultimate development will be of the order of 40,000 kW. At Aiyura, a 30 kW hydro-electric station for the Agricultural Experimental Station, was brought into operation in August, 1956.

At Goroka, two 100 kW hydro-sets are now in operation and a 200 kW set is on order. Investigations are now being carried out to ascertain the possibility of installing an additional 500 kW hydro-set.

Stream gauging and other preliminary investigations for hydro-electric schemes have been carried out at Lae, Rabaul, Madang, Wewak and Highland stations.

There are possibilities for major hydro-electric development in the following localities:—Rouna Falls (near Port Moresby), Upper Snake and Busu-Erap-Leron (near Lae), Upper Ramu (near Markham-Ramu divide—80 miles from Lae) and Hathor Gorge (on Purari River) with an estimated average power of 100,000 kW, 150,000 kW, 2 million kW, 250,000 kW, and 3 million kW respectively. These have estimated run-offs of 1,400; 6,000; 12,000; 1,000; and 75,000 cusecs respectively.

In an area of 150,000 square miles of the Eastern New Guinea mainland, the power potential has been estimated at 150 kW per square mile which compares favourably with potentials of 170 kW per square mile for Switzerland and 95 kW per square mile for Norway.

D. STATISTICAL SUMMARY, 1952-53 AND 1957-58.

The following table shows statistics for each State separately and for the six States combined for 1952-53 and 1957-58 and relates to:—(i) the numbers and installed capacity of central electric generating stations, (ii) the values of production and output and the average numbers of persons employed in the generating side of the electricity supply industry and (iii) the amount of electricity generated and the number of ultimate consumers of electricity.

For further statistics of the electricity supply industry (years 1938-39 and 1953-54 to 1957-58), see Chapter VI.—Manufacturing Industry.

CENTRAL ELECTRIC STATIONS.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1952-53.							
<i>Generating Stations—</i>							
Government .. No.	18	11	..	7	8	5	49
Local Authority ..	36	33	43	14	37	..	163
Companies ..	32	24	9	21	50	1	137
<i>Total</i>	<i>86</i>	<i>68</i>	<i>52</i>	<i>42</i>	<i>95</i>	<i>6</i>	<i>349</i>
<i>Installed Capacity of Generators—</i>							
Steam .. '000 kW	1,133	608	304	(a)	136	(a)	2,435
Hydro ..	35	52	4	(a)	..	(a)	313
Internal combustion ..	91	35	41	(a)	45	(a)	224
<i>Total</i>	<i>1,259</i>	<i>695</i>	<i>349</i>	<i>(a)</i>	<i>181</i>	<i>(a)</i>	<i>2,972</i>
Persons employed(b) No.	4,851	2,608	1,176	(a)	1,003	(a)	10,891
Value of output(c) £'000	26,762	14,095	7,599	(a)	5,110	(a)	60,083
Value of production(d) ..	10,606	6,352	2,566	(a)	2,200	(a)	24,582
Electricity generated(e) million kWh	4,868	3,193	1,349	822	569	1,244	12,045
Ultimate consumers(f) No.	897,286	655,055	290,179	199,149	110,521	93,100	2,245,290

CENTRAL ELECTRIC STATIONS—*continued*.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1957-58.							
<i>Generating Stations—</i>							
Government .. No.	28	17	1	7	11	8	72
Local Authority ..	25	17	57	11	36	..	146
Companies ..	19	17	2	20	40	3	101
<i>Total</i> ..	72	51	60	38	87	11	319
<i>Installed Capacity of Generators—</i>							
Steam .. '000 kW	1,681	877	518	(a)	240	(a)	3,705
Hydro ..	155	237	43	(a)	2	(a)	933
Internal combustion ..	92	47	36	(a)	57	(a)	243
<i>Total</i> ..	1,928	1,161	597	(a)	299	(a)	4,881
Persons employed(b) No.	5,558	3,247	1,605	(a)	1,070	(a)	12,833
Value of output(c) £'000	44,312	25,536	12,055	(a)	7,038	(a)	100,515
Value of production(d) ..	26,283	13,706	5,260	(a)	3,318	(a)	55,514
Electricity generated(e) million kWh	7,595	5,321	2,133	1,580	829	2,338	19,796
Ultimate consumers(f) No.	1,067,205	816,411	367,600	264,000	144,864	111,650	2,771,730

(a) Not available for publication; included in the total for Australia. (b) Average employment in generating station, over whole year, including working proprietors. (c) Value, at generating station, of electricity produced plus certain earnings. (d) Value added in the process of generation. (e) Total generated including that generated by factories for their own use. (f) Approximate figures supplied by the electricity authority in each State. An "ultimate consumer" is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organization supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household.

CHAPTER VIII.

WATER CONSERVATION AND IRRIGATION.

A. RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS.

§ 1. Introduction.

Official Year Book No. 37, pages 1096-1141, contained a special article "The Conservation and Use of Water in Australia" prepared by Mr. Ulrich Ellis of Canberra. In subsequent issues, much of Mr. Ellis's article of a statistical nature has been advanced, as has the general information on the more important developments in this field, but for details of general, descriptive and historical matter reference should be made to the original article. Appended to the special article, pages 1140-41, was a bibliography of selected books, reports, papers, etc., dealing with the development of the water resources of Australia and their conservation.

For further details on geographical and climatic features determining the Australian water pattern, reference should be made to Chapter II.—Physiography; on water supply and sewerage in metropolitan areas, cities and towns to Chapter XIX.—Local Government; and on the generation of hydro-electric power to Chapter VII.—Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259-265 of this Year Book and a map showing the extent of known artesian basins throughout Australia is shown on page 257.

§ 2. Water Resources and their Utilization.

1. **Surface Supplies.**—Though river gaugings have been recorded over considerable periods in some parts of Australia, records elsewhere are intermittent, of short duration, or non-existent. At present, therefore, it is impossible to estimate, with any degree of reliability, the total average annual flow of Australian streams, but it would probably amount to only a small figure in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Nile, 72; Danube, 228; Amazon, 1,780; Volga, 148; Mississippi, 474; and the ten main rivers of the United States of America in the aggregate, 900.

2. **Major Dams and Reservoirs.**—The table below lists existing major dams and reservoirs, together with those under construction and those projected as at June, 1959:—The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are, in addition, many other dams and reservoirs of smaller capacity in Australia.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA.

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS.				
Eucumbene	Eucumbene River, New South Wales	3,500,000	381	Part of Snowy Mountains Hydro- electric Scheme..
Eildon	Upper Goulburn River, Victoria	2,750,000	250	Storage for irrigation and for the generation of electricity.
Hume	Murray River near Albury	1,800,000	176	Part of Murray River Scheme— storage for domestic, stock and irrigation purposes. Being increased to 2,500,000 acre feet. Hydro-electric power also developed.
Miena	Great Lake, Tas- mania.	(a)984,500	40	Regulates water to Waddamana hydro-electric power station..
Burrinjuck	Murrumbidgee River New South Wales	837,000	264	Storage for irrigation and pro- duction of hydro-electric power
Somerset	Stanley River, Queensland	735,000	173	Brisbane-Ipswich water supply, flood mitigation and small hydro-electric power station.
Lake Victoria ..	Murray River, near South Australian border, in New South Wales	551,700	..	Natural storage for irrigation in South Australia. Storage im- proved by construction of embankments and control regulators.

(a) Useful storage only.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued.*

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS— <i>continued.</i>				
Lake Echo ..	Lake Echo, Tas- mania	(a)412,200	60	Storage for Lake Echo and Tun- gatinah hydro-electric power stations.
Waranga ..	Goulburn River, Victoria	333,400	..	Irrigation storage.
Tinaroo Falls ..	Barron River, North Queensland	330,000	133	For irrigation purposes in the Mareeba-Dimbulah area.
Wyangala ..	Lachlan River, New South Wales	303,900	190	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power.
Glenbawn ..	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conserva- tion work, for irrigation and flood mitigation.
Rocklands ..	Glenelg River, Vic- toria	272,000	..	Part of Wimmera-Mallee domes- tic and stock water supply system.
Clark ..	Derwent River, Tas- mania	(a)253,400	200	Serves Tarraleah hydro-electric power station.
Avon ..	Avon River, New South Wales	173,800	232	Part of Sydney water supply.
Glenmaggie ..	Gippsland, Victoria	154,300	100	Storage for irrigation.
Lake St. Clair ..	Central Highlands, Tasmania	(a)154,200	..	Improved natural storage for Tarraleah hydro-electric power station.
Lake Brewster ..	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan.
Cairn Curran ..	Loddon River, Vic- toria	120,600	..	Storage for irrigation.
Upper Yarra ..	Yarra River, Victoria	110,000	270	For Melbourne water supply.

DAMS AND RESERVOIRS UNDER CONSTRUCTION.

Menindee Lakes Pro- ject ..	Darling River, near Menindee, New South Wales	2,000,000	..	Part of Darling River water con- servation scheme, for irrigation and possible hydro-electric power generation.
Warragamba ..	Warragamba River, New South Wales	1,694,900	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation.
Burrendong ..	Macquarie River, near Wellington, New South Wales	1,361,000	240	For rural water supplies, flood mitigation and possible hydro- electric power generation.
Keepit ..	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity generation.
Tantangara ..	Murrumbidgee River, New South Wales	(a)193,000	148	Part of Snowy Mountains Hydro- electric Scheme.
Wellington ..	Collie River, Western Australia	150,000	112	Existing dam is being enlarged for supply of water to irri- gation districts and to agri- cultural areas and towns.
Koombooloomba ..	Tully River, North Queensland	146,000	123	For hydro-electric and possibly irrigation purposes.

DAMS AND RESERVOIRS PROJECTED.

Burdekin Falls ..	Burdekin River, North Queensland	6,584,000	150	For generation of hydro-electric power, irrigation and flood mitigation.
Blowering ..	Tumut River, New South Wales	800,000	250	Part of Snowy diversion scheme, for irrigation and hydro- electric power generation.
Jindabyne ..	Snowy River, New South Wales	560,000	210	Part of Snowy Mountains Hydro- electric Scheme.
Warkworth ..	Wollombi Brook, Hunter Valley, New South Wales	400,000	100	Flood mitigation dam for the Hunter Valley
Arthur Lakes ..	Source of Lake River near Great Lake, Tasmania	(a)339,000	50	Part of Great Lake hydro-electric power development.
Tumut 4 ..	Tumut River, New South Wales	138,000	300	Part of Snowy Mountains-Hydro- electric Scheme.
Tumut 3 ..	Tumut River, New South Wales	120,000	240	Part of Snowy Mountains Hydro- electric Scheme.

(a) Useful storage only.

3. Irrigation.—(i) *History.* For some brief remarks on the history of irrigation in Australia referring to the efforts of the Chaffey brothers and to the Victorian Irrigation Act in 1886 see issues of the Official Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Official Year Book No. 37, page 1009.

(ii) *Extent and Nature of Irrigated Culture.* About half of Australia's irrigated acreage is in Victoria, and about two-thirds is situated along the Murray and its tributaries (including the Murrumbidgee) in the three States of New South Wales, Victoria and South Australia. In those areas served by the Murray and its tributaries, irrigation water is used extensively for vines, orchards, pastures, fodders, and for domestic and stock purposes. Approximately forty per cent. of Queensland's irrigated acreage is devoted to sugar cane. Western Australia's small irrigated acreage is confined to areas in the south-west where vegetables, orchards, fodders, and pastures are served. Large scale irrigation schemes have not been developed in Tasmania or the Northern Territory although reference is made on page 282 to investigations at present being carried out in the Northern Territory to determine the availability of irrigation water for rice production.

The following table shows the area of land irrigated in each State during the years 1954-55 to 1958-59:—

AREA OF LAND IRRIGATED.

(Acres.)

Season.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55 ..	616,264	863,563	139,414	69,452	36,130	13,761	151	791	1,739,526
1955-56 ..	379,611	634,334	136,019	70,987	37,164	11,499	225	774	1,270,613
1956-57 ..	525,236	855,182	121,672	66,118	38,567	12,110	168	885	1,619,938
1957-58 ..	695,365	1,001,800	160,345	80,853	41,319	15,321 (c)	127	1,396	1,996,526
1958-59 ..	641,361	965,766	154,633	85,081	44,102	13,431 (c)	274	1,224	1,905,872

(a) Source: Water Conservation and Irrigation Commission.

(b) Source: State Rivers and

Water Supply Commission.

(c) Incomplete; excludes area of rice irrigated.

The next table shows the area of land irrigated in each State during 1958-59 according to the nature of irrigated culture:—

AREA OF LAND IRRIGATED, 1958-59.

(Acres.)

Crop.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Rice ..	47,054						(c)		47,054
Vegetables ..	15,828	18,595	26,597	10,675	8,211	1,386	95	176	81,563
Fruit ..	22,134	35,349	4,876	20,795	6,850	1,737	50	13	175,129
Vineyards ..	13,039	44,267		25,389	630				
Sugar-cane ..	(d)		65,613						65,613
Hops ..		(d)				1,292			1,292
Cotton ..			1,520						1,520
Other Crops (including Fodder and Fallow land)	116,531	39,050 (e)	45,625	6,975	3,429	1,514	114	664	213,902
Total, Crops	214,586	137,261	144,231	63,834	19,120	5,929	259	853	586,073
Pastures ..	426,775	828,505	10,402 (g)	21,247	24,982	7,502	15	371	1,319,799
Total ..	641,361	965,766	154,633	85,081	44,102	13,431	(h) 274	1,224	1,905,872

(a) Source: Water Conservation and Irrigation Commission.

(b) Source: State Rivers and

Water Supply Commission.

(c) Not available for publication.

(d) Included in Other Crops.

(e) Includes Tobacco, 7,490 acres.

(f) Includes lucerne for both hay and pasture.

(g) Includes

lucerne for pasture.

(h) Incomplete; excludes area of rice irrigated.

(iii) *Research.* Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following:—high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilization of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; and the potability of saline waters for stock.

The Commonwealth Scientific and Industrial Research Organization maintains the following research stations:—Merbein (Victoria)—horticultural problems, particularly of the dried vine fruits industry; Griffith (New South Wales)—the influence of irrigation on plant life (using horticultural trees as test plants), irrigation methods, land drainage and soil structure; Deniliquin (New South Wales)—irrigated pastures; and the Kimberley Research Station (Western Australia)—tropical crops and pastures. In the maintenance of Merbein and Griffith Stations, the Commonwealth is assisted, financially and otherwise, by the New South Wales Water Conservation and Irrigation Commission, by the Dried Fruits Export Control Board and by private organizations.

The Soils Division of the Organization has made detailed surveys of more than a million acres since 1927, with less detailed reconnaissance surveys over many millions of acres. The Division works closely with State authorities. The keynote of soil investigations is relationship between soil and land use, and there is an increasing tendency to seek such surveys before irrigation districts are established. Research is also conducted in the field of water percolation in relation to soil structure.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation Areas. It is representative of the State Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales and certain farmers' organizations (including Extension Groups). Finance is provided by these authorities on an agreed basis. The objectives are:—to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organization; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and the co-ordination of the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

4. Preservation of Catchments.—Since water conservation commences on the catchments, it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reafforestation and the preservation of catchments. In recent years, efforts to counteract soil erosion have been intensified and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

5. Sub-surface Supplies.—(i) *General.* There is no national body in Australia concerned with Commonwealth-wide research into and delineation of underground water resources. However, the Australian Academy of Science, in 1956, instituted a Standing Committee on Hydrology; as a result of discussions by this committee, the Academy, in 1958, recommended the need for such a body. The Commonwealth Government subsequently convened, in 1959, a meeting of interested Government agencies from all States to discuss the need for a permanent Commonwealth and States Conference on Underground Water and the need for the appointment of more Government hydro-geologists. The meeting acknowledged both these needs; its decisions are being considered by the respective Governments.

Although there is no national co-ordinating body, the various States and Territories do maintain Geological Surveys and Water Commissions which are continually extending the knowledge of their own States.

As a result a more or less complete general picture of the available and potential surface water resources exists, but much remains to be done with regard to the location and development of sub-surface supplies (artesian, sub-artesian and ground water), in view of their importance as the basis of settlement over large areas of Australia.

The extent of the artesian basins—particularly the Great Artesian Basin—has been determined fairly accurately while the use of sub-artesian supplies is extensive and more development is possible. The shallower ground-water supplies, however, particularly along alluvial valleys and coastal sandbed areas, have not been investigated or developed to any degree, except in a few localities.

(ii) *Artesian and Sub-artesian Supplies.* Pressure water, variable in quantity and quality, either artesian or sub-artesian, is obtainable in many parts of Australia, the various artesian basins extending over approximately one-third of the continent. A map of Australia showing the extent of the known artesian basins appears on page 257 of this Year Book.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 670,000 square miles, comprising about 430,000 in Queensland, 80,000 in New South Wales, 120,000 in South Australia and 40,000 in the Northern Territory. Of the numerous defined major and minor water-bearing basins in Australia, the following are the principal:—

PRINCIPAL WATER-BEARING BASINS: AUSTRALIA.

Name.	State.	Geological Age of Chief Aquifers.	Approximate Area.	Depth to Pressure Water.
			Square Miles.	Feet.
Great Artesian ..	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	670,000	Up to 7,000
Desert and Fitzroy Murray ..	Western Australia, Victoria, New South Wales and South Australia	Mesozoic-Palaeozoic Miocene-Oligocene ..	160,000 107,000	100 to 1,500 100 to 900
Eucla	Western Australia, South Australia	Pliocene-Miocene ..	68,000	300 to 2,000
Barkly	Northern Territory, Queensland	Cretaceous, Cambrian and Upper Precambrian	57,000	150 to 1,000
North-west ..	Western Australia	Cretaceous, Permian ..	40,000	230 to 4,000
South-west ..	Western Australia	Recent, Jurassic ..	10,000	200 to 2,500
Pirie-Torrens ..	South Australia ..	Recent, Pleistocene ..	4,000	Up to 600
East Gippsland ..	Victoria ..	Pleistocene-Oligocene	2,500	200 to 1,800
Adelaide ..	South Australia ..	Recent, Oligocene ..	1,100	10 to 850
Basins of Ord-Victoria Region	Northern Territory, Western Australia	Mainly Cambrian and Permian	Unknown	Unknown

More than 3,000 artesian bores have been constructed within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated to exceed 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but it is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In some districts, a considerable amount of irrigation is carried out from shallow ground-water supplies.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, many will not cease, but will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by sandstone outcrops. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or "bore drains" and the careless use of water. (For greater detail on this subject see Official Year Book No. 37, pp. 1103-4.)

(iii) *Ground Water.* Ground water supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes. Two of the most important of these supplies are in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle and at Botany, Sydney, private industry pumps 5 million gallons a day for its own use from similar sands.

Recent exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day.

§ 3. National and Interstate Aspects.

1. *General.*—As the Commonwealth Constitution makes special reference to water problems, both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources resides in the individual State governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following sections.

In the Report on Irrigation, Water Conservation and Land Drainage presented to the Commonwealth Government by the Rural Reconstruction Commission in 1945, national aspects of water conservation and use were emphasized. The report recommended that, to obviate lack of co-ordination, an all-Australian plan having the assent of the various governments be adopted, and that the Commonwealth should endeavour to promote interstate co-operation and co-ordinated development generally.

In 1946, a conference between the Commonwealth and States agreed to revive the Irrigation Production Advisory Committee first established under the authority of the Australian Agricultural Council in 1938. Its functions are:—(a) to prepare for the consideration of the Australian Agricultural Council or any Committee of Ministers appointed by the Council, conclusions formed from investigations to be carried out by Commonwealth and State Officers into the various agricultural industries which it is possible to develop on irrigated lands; (b) to undertake long-term co-ordination of land utilization in irrigable areas served by the River Murray and its tributaries, involving co-ordination of all available lands and the carrying out of such supplementary investigations as may prove necessary.

2. *Murray River Scheme.*—(i) *General.* The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 414,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Murrumbidgee (980 miles), the Darling (1,700 miles), and the Goulburn (280 miles). The average annual flow of each of the chief contributory streams is as follows:—Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,506,000 acre feet; Murrumbidgee River, 2,280,000 acre feet; Goulburn River (including Broken River), 2,502,000 acre feet; Darling River, 2,224,000 acre feet; and Ovens River, 1,169,000 acre feet. Irrigated production in the River Murray basin is mainly in the form of grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, fat lambs, poultry, eggs and pigs.

For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, see issues of the Year Book prior to No. 39. The Agreement provided for the construction of works, the allocation of the water between the three States, and the appointment of a Commission to implement the Agreement. The Commission comprises four Commissioners, representing the Commonwealth and the three States respectively. The Commonwealth representative presides.

(ii) *River Murray Waters Agreement.* Under the Agreement, construction works are carried out by the States (who are also responsible for maintenance) subject to the approval and direction of the Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to fill Lake Victoria storage once, and with the aid of water returned from Lake Victoria, to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. These flows are to meet domestic and stock requirements in South Australia, losses of water in lockages and evaporation losses other than in the lakes at the Murray mouth, together with 603,000 acre feet per annum for diversion from the Murray for irrigation in South Australia. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949, see Official Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in July, 1949, to consider the diversion of the Snowy River, it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (see para. 4, Snowy Mountains Hydro-electric Scheme, p. 248) and that a storage of not less

than 1,500,000 acre feet should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and found that an increase in capacity of 500,000 acre feet in storage on the Upper Murray River above Albury was the maximum that was economically justifiable for the regulation for irrigation purposes of the waters of the Upper Murray River and of waters added from the Snowy River. The Commission agreed that this increase could best be provided by increasing the size of the Hume Reservoir from its previously designed capacity of 2,000,000 acre feet to 2,500,000 acre feet, but if additional storages for hydro-electric purposes become justified in the future further increases would best be provided at some other site. It subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for this enlargement of the Hume Reservoir to 2,500,000 acre feet. A conference of Ministers considered the recommendation in July, 1954, and agreed to the enlargement. In addition, it was agreed that the Commission should be given power to construct regulators and to carry out such other work on the River Murray between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7th April, 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the River Murray, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following Ministerial conferences, amendments were ratified by the four Parliaments concerned and came into force on 6th November, 1958.

The estimated quantity (in acre feet) of water diverted during 1958-59 from the Murray and its tributaries for irrigation and other purposes under the River Murray Agreement was as follows:—New South Wales, 2,155,000; Victoria, 2,576,000; South Australia, 260,000; a total of 4,991,000 acre feet.

(iii) *River Murray Works.* One of the major works of the Murray River Scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, 10 miles above Albury, forming a lake of 33,000 acres. The design comprises a mass concrete spillway and outlet works extending 1,000 feet and an earthen embankment 110 feet high extending for 4,000 feet across the river flats. The length of the total structure is approximately one mile. Work is nearly completed on the enlargement of the reservoir to its approved capacity of 2,500,000 acre feet. The fixed spillway was completed to its final level in May, 1957, and installation of flood gates to raise the level a further 24 feet was completed in September, 1958. The anchoring of the concrete section of the dam to the underlying rock by prestressed cables was still in progress in September, 1959. On completion of this work, the storage may be raised to its approved capacity. In the meantime, the storage can be progressively increased as work proceeds.

The Yarrawonga Diversion Weir was completed in 1939 to raise the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan Junction and the other below the Lachlan Junction.

The Mulwala Canal, served by the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, and will serve 1,500,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, and is designed to serve 270,000 acres. Only a portion of each area will be irrigated.

Adjoining the river in New South Wales and 35 miles from the Murray-Darling Junction, Lake Victoria storage, with a capacity of 551,700 acre feet and a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. Work has recently been completed on the enlargement of the inlet channel to Lake Victoria to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The total capacities of such main storages are: New South Wales—Burrinjuck (Murrumbidgee), 837,000 acre feet; Wyangala (Lachlan), 303,900 acre feet; Victoria—Eildon (Goulburn), 2,750,000 acre feet; Waranga (Goulburn), 333,400 acre feet. More details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia.

3. New South Wales-Queensland Border Rivers Agreement.—The New South Wales-Queensland Border Rivers Agreement came into effect on 1st July, 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland, for the furtherance of water conservation; water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Commission to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir in the Macintyre River at Goondiwindi and the existing weir in the Barwon River at Mungindi. The costs of these works and of administration are to be borne by the States in equal shares. The agreement further provides that the water discharged from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

The Water Conservation and Irrigation Commission of New South Wales, which is the constructing authority for the dam, carried out investigations of several dam sites on the Dumaresq River near Mingoola Station homestead, which is approximately 39 miles from Tenterfield. Foundation drilling supplemented by a geophysical survey carried out by the Commonwealth Bureau of Mineral Resources disclosed unfavourable foundation conditions at all sites, the depth of alluvium overlying sound rock exceeding 150 feet in all cases. In an endeavour to obtain more economical storages, investigations were extended to tributary streams and superficially suitable sites have been located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Exploratory drilling of the tributary sites is now in progress.

The Irrigation and Water Supply Commission of Queensland is the constructing authority for the new weirs and regulators. The construction of Bonshaw and Cunningham Weirs on the Dumaresq River was completed in January, 1953, and June, 1954, respectively.

A weir and regulator is at present under construction on the Barwon River at the offtake of the Boomi River. The construction of a low level weir to establish a pumping pool at Glenarbon on the Dumaresq River was complete at 30th June, 1959, except for the installation of a fish ladder. The existing Goondiwindi and Mungindi Weirs are being maintained; operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed, it is unlikely that any weirs, other than those referred to above, will be required.

The catchments for the border streams (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland) and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that it is necessary to supplement rainfall from April to October by irrigation to stabilize and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

4. Snowy Mountains Hydro-electric Scheme.*—Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in

* See also Chapter VII.—Electric Power Generation and Distribution, p. 216. For more detailed information see special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX—Miscellaneous, of Official Year Book No. 42.

1947 and 1948, and the submission by the committee of reports in 1948 and 1949, the Commonwealth Parliament in July, 1949, passed the Snowy Mountains Hydro-electric Power Act setting up an Authority to implement the proposals agreed upon.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The Scheme involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams and this makes more water available for irrigation. Details of the two transmountain diversions and the associated power works together with details of progress and construction are given in Chapter VII.—Electric Power Generation and Distribution.

Commencing in the 1960–61 irrigation season, the Scheme will make available an additional 170,000 acre feet of water each year for irrigation in the Murrumbidgee Valley. During 1963, this will increase to 500,000 acre feet per annum. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land which should result in additional annual primary production to the value of some £30 million per annum.

B. STATES AND TERRITORIES.

§ 1. Australian Local Pattern of Water Conservation and Use.

The foregoing sections deal with water conservation and irrigation in Australia generally and with national and interstate projects. The following survey indicates the local pattern of water resources and the steps taken by the State Governments to bring about their development. It will be seen that water policies in the various States tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales, major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production.

Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest appertains almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

§ 2. New South Wales.

1. *General.*—(i) *Rainfall and History.* In issue No. 37 of the Year Book (p. 1110), information is given on the pattern of rainfall and the history of irrigation in New South Wales. (See also Chapter II.—Physiography, p. 45, of this issue.)

(ii) *Administration.* The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood

control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales—Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see page 248 of this chapter.

2. Schemes Summarized.—(i) *Location and Type.* The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam and Lake Brewster on the Lachlan, a tributary of the Murrumbidgee, and by Glenbawn Dam on the Hunter River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc., in many places, and head storages have been commenced on the Macquarie and Namoi Rivers whilst Menindee Lakes storage, to conserve the waters of the Darling River, is being constructed. Substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts and river improvement districts. There are seven irrigation areas:—The Murrumbidgee Irrigation Areas consisting of 451,251 acres served with water through a channel system stemming from the river at Berembed Weir; the Coomealla Irrigation Area of 34,672 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,549 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,806 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres supplied from the Edward River by diversion at Stevens Weir; and the recently established Buronga (8,693 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas served by pumping from the Murray. All these areas are administered by the Commission and details of the various schemes are given in sub-section (iii) below.

(ii) *Works.* The capacities of the main storages (in acre feet) are:—

Murray:—Half share of Hume Reservoir, weirs and locks to Wentworth (1,011,420); Stevens Weir, Edward River (7,165).

Murrumbidgee:—Burrinjuck Dam (837,000); Berembed Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740).

Lachlan:—Wyangala Dam (303,900); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200).

Hunter:—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

Water from the Hume Reservoir is used for domestic and stock purposes, to provide bulk supplies for country towns, for the irrigation of vines, fruits and fodder in the Curlwaa and Coomealla Areas, for rice and other cereals and for pastures in the Tullakool Irrigation Area, for domestic and stock supply and irrigation in the Berriquin, Wakool and Denimein Districts, and for water trusts for domestic and stock purposes and/or irrigation.

The Wyangala Dam is 30 miles upstream from Cowra in the Central West. It has a catchment of 3,200 square miles. Water from the dam, supplemented by the unregulated flow of the Belubula River, provides for domestic and stock purposes along the full length of the river (over 700 miles) and also for irrigation by land holders operating licensed pumps. The towns of Cowra, Forbes, Condobolin, Hillston and Booligal are supplied. Balance storages at Lake Cargelligo and at Lake Brewster conserve water during periods of high flow for release as required. Water from the Lachlan, diverted at Jemalong Weir, supplies the districts of Jemalong and Wylde's Plains, serving an area of 224,556 acres. Proposals for future development include provision of a head storage on the Belubula River.

The approximate total length of channels (including main canals) constructed by the Water Conservation and Irrigation Commission in New South Wales is 3,247 miles. The approximate length of drains and escape channels is 1,000 miles, and the total length of pipe lines is approximately 68 miles, making a grand total of 4,315 miles of channels and pipe lines, etc.

(iii) *Extent of Systems and Nature of Irrigated Culture.* The following table shows the areas of the various irrigation systems and particulars of the areas under irrigated culture in New South Wales during 1958-59:—

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES, 1958-59.

(Acres.)

System, etc.	Total Area.	Area Irrigated.										Total.
		Rice.	Other Cereals Grown for Grain.	Lucerne. (a)	Other Fodder Crops.	Pastures.		Vineyards.	Orchards. (c)	Vegetables.	Fallow Land and Miscellaneous.	
						Sown. (b)	Natural.					
Irrigation Areas—												
Murrumbidgee (within the Areas)	451,251	28,021	8,309	3,008	2,733	66,649	2,407	5,191	14,624	3,842	18,610	153,394
Lands adjacent supplied under agreement	(d)	..	..	89	7	186	1,560	2	73	4	..	1,921
Coomealla ..	34,672	..	..	6	..	..	..	4,292	944	..	..	5,242
Curlwaa ..	10,549	..	..	..	40	..	..	479	1,055	..	..	1,574
Hay ..	6,806	..	..	58	186	1,591	77	..	..	..	..	1,912
Tullakool ..	18,006	1,021	130	60	10	6,580	..	..	..	..	335	8,136
Total ..	521,284	29,042	8,439	3,221	2,976	75,006	4,044	9,954	16,696	3,846	18,945	172,179
Irrigation Districts—												
Benerambah ..	112,818	5,345	5,012	1,107	705	16,580	..	..	..	..	3,940	32,689
Tabbitta ..	10,745	297	..	50	267	1,610	400	..	..	..	20	2,644
Wah Wah ..	575,224	..	1,360	1,440	1,390	8,250	..	..	..	..	1,750	14,190
Berriquin ..	781,152	..	6,400	13,768	1,750	201,792	2,250	..	..	10	2,270	228,240
Wakool ..	494,708	6,364	1,750	1,519	1,242	55,596	630	..	..	20	810	67,931
Denimein ..	147,005	2,486	1,185	1,380	90	10,650	200	..	12	..	760	16,763
Jemalong and Wylde's Plains ..	224,556	..	90	6,832	..	3,025	..	..	..	..	393	10,340
Gumly ..	353	..	39	76	8	37	..	..	19	45	..	224
Deniboota ..	307,212	3,520	630	1,139	505	16,392	160	..	..	..	1,195	23,541
Total ..	2,653,773	18,012	16,466	27,311	5,957	313,932	3,640	..	31	75	11,138	396,562
Flood Control Districts—												
Lowbidgee ..	375,000	..	..	..	..	..	(f)94,118	..	..	..	..	(f)94,118
Medgun ..	272,800	..	..	..	..	..	(f)61,760	..	..	..	..	(f)61,760
Total ..	647,800	..	..	..	..	..	f 155,878	..	..	..	..	f 155,878
Irrigation Trusts—												
Pomona ..	1,580	..	..	..	..	..	..	770	130	..	..	900
Bringan ..	4,933	..	..	..	..	..	..	..	..	..	..	(d)
Bungunyah-Koraleigh ..	1,810	..	..	..	..	..	..	990	72	80	..	1,142
Glenview ..	661	..	..	..	..	..	..	..	..	..	..	(d)
Goodnight ..	1,167	..	..	..	..	..	..	548	41	2	10	601
Bama ..	3,446	..	..	..	..	..	..	..	..	..	..	(d)
Blairmore ..	315	..	..	..	..	..	..	..	..	..	..	(d)
Total(e) ..	13,912	..	..	..	..	..	..	2,308	243	82	10	2,643
Water Trusts—Domestic and stock supplies	2,909,456	..	..	..	..	..	..	..	..	..	..	..
Licensed Diversions(g)—												
To irrigate ..	(d)	..	..	16,145	5,338	25,668	4,485	767	5,164	11,285	(h) 585	69,977
Grand Total(e) ..	(d)	47,054	24,905	46,677	14,271	414,606	168,047	13,039	22,134	15,828	30,678	797,239

(a) Includes grazing and cutting.

(b) Perennial and annual self-seeding. Perennial amounted to 53,042 acres.

(c) Citrus and deciduous. Deciduous amounted to 9,277 acres of which 7,795 acres were in the Murrumbidgee Irrigation Area.

(d) Not available. (e) Incomplete. (f) Area irrigable; details of area actually irrigated are not available.

(g) Excludes domestic and stock supplies for which particulars are not available. (h) Tobacco.

(i) Includes Flood Control Districts; but excludes some Irrigation Trusts for which information is not available.

3. Murrumbidgee. Irrigation. Areas.—(i) Description. These areas together with adjacent lands supplied under agreement, received 288,412 acre feet, or about a quarter, of the total water (1,183,989 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam (capacity 837,000 acre feet), on the Murrumbidgee, 40 miles north-west of Canberra. The catchment above the dam is 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbatta, Benerembah and Wah Wah and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter and spring freshets, fed by melting snows, and is released during the September-May irrigation season. It passes along the river channel to Berembred Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 96½ miles from the off-take. Reticulation channels aggregate approximately 879 miles and drainage channels 802 miles. In addition, approximately 446 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission, but land transactions are not under its control.

The land on which the Murrumbidgee Irrigation Areas are situated originally comprised large sheep stations and was sparsely populated. Population was 12,000 in 1923, 15,000 in 1929, 20,000 at the 1947 Census and 24,000 at the 1954 Census. At the 1954 Census, the population of the Yanco District (with Leeton as the centre) was 10,000 and the population of the Mirrool Area (with Griffith as the centre) was 14,000. At 30th June, 1958, the population of Leeton Shire was estimated at 10,400, and that of Wade Shire at 15,450.

(ii) *Administration.* The Water Conservation and Irrigation Commission control land transactions and water supplies for the Murrumbidgee Irrigation Areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission under freehold or perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30th June, 1959, was 32,970 acres, including 39,171 held for short lease grazing, agriculture, etc.

(iii) *Production.* Since the inauguration of the scheme in 1912, the volume of production from the area has greatly increased. Numbers of new crops are grown while the volume of the major products of the area prior to the scheme, such as wool and livestock for slaughtering, has expanded considerably. The principal products to-day are: wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans and root vegetables.

Rice growing was initiated on the Murrumbidgee Irrigation Areas in 1924 and has since become the most important crop grown in the area. In 1958–59, the total area sown was 28,021 acres and the total quantity of water delivered for the rice crops was 146,697 acre feet. In a normal season, the water supplied for rice represents about one-half of the total delivered to the Murrumbidgee Irrigation Areas.

Co-operation is a prominent feature in the Murrumbidgee Areas. Co-operative organizations in the Mirrool section handle about 300,000 bushels of fruit a year (compared with 54,600 in 1927–28). The annual sales turnover of the Leeton cannery in recent years has exceeded £2,000,000. Settlers and government agencies co-operate extensively in all matters relating to irrigation practice.

4. Other Irrigation Areas.—The Curlwaa, Coomealla, Hay, Buronga, Mallee Cliffs and Tullakool Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which also is responsible for the operation and maintenance of works to supply water.

Curlwaa Area, on the Murray near Wentworth, consists of 10,549 acres of which 7,815 acres were occupied at 30th June, 1959. Production consists of dried vine fruits, deciduous fruits and fodder crops.

Coomealla Area; 9 miles upstream from Curlwaa, comprises 34,672 acres of which 31,013 acres were occupied at 30th June, 1959. Production consists of vine and citrus fruits. An extension of the Coomealla Irrigation Area was completed in recent years to provide irrigation farms for ex-servicemen and 100 ex-servicemen were placed on the new farms.

Tullakool Area, formerly part of the Wakool Irrigation District, comprises 18,006 acres of which 14,311 acres are occupied. Main products are fat lambs, wheat and rice.

Hay Area, on the lower Murrumbidgee, consists of 6,806 acres, of which 6,241 acres are occupied. Production comprises dairy products, fat lambs, sheep, wool and fodders.

Buronga Area, a new area on the Murray River, upstream from Wentworth, consists of 8,693 acres, of which 1,151 acres are occupied. Production will be mainly fruit, vegetables and dairy products. Mallee Cliffs is also a new area upstream from Wentworth, its area being 1,900 acres, of which 1,332 acres are occupied.

5. **Irrigation Districts.**—These Districts are set up under the Water Act for (a) domestic and stock water supply and (b) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders. The following are the districts or provisional districts constituted and the areas of land benefited:—*Murray River*—Wakool District (completed) 494,708 acres, Berriquin Provisional District 781,152 acres, Denibootea Provisional District 307,212 acres, Denimein Provisional District 147,005 acres, Jernargo Provisional District (certain portions of which have been included in Berriquin District) 4,325 acres, Barramein Provisional District (domestic and stock supply only—works not yet commenced) 89,080 acres; *Murrumbidgee River* (completed)—Benerembah District 112,818 acres, Tabbita District 10,745 acres, Wah Wah District 575,224 acres, Gumly Provisional District 353 acres; *Lachlan River* (completed)—Jemalong and Wylde's Plains Districts 224,556 acres.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on "extensive" irrigation—that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. "Water right" means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Denibootea and Denimein Districts is diverted through a main canal which will be 100 miles long when completed. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30th June, 1959, the total length of completed canals and channels in Berriquin District was 970 miles, including Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 767 miles, escape channels 96 miles and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day.

Wakool, with 384 miles of channel, contains 308 holdings and the area developed by irrigation comprises about one acre in eight of the total area. The total area irrigated in 1958–59 was 67,931 acres and water supplied was 110,314 acre feet. Crops comprised fodders, pastures, rice, cereals and vegetables, but sheep raising is the main industry.

Considerable subdivision has occurred within the Berriquin District and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Total irrigated acreage was 228,240 at 30th June, 1959. Sheep and wheat growing are the main industries. The fat lamb industry is well developed and expanding. Dairying is making headway, and a butter factory has been established at Finley.

In the Benerembah, Tabbita and Wah Wah Districts, supplied from the channels of the Murrumbidgee Irrigation Areas, the quantity of water supplied during the 1958–59 season for irrigation, etc., was 95,864 acre feet, and the area irrigated was 49,523 acres, including rice and other cereals, pastures, and fodder crops.

For the same season, 8,468 acre feet of water were supplied from the Lachlan River to irrigate a total area of 10,340 acres within the Jemalong and Wylde's Plains Districts.

6. **Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts.**—The Water Act provides for the constitution of Trust Districts for domestic and stock water and irrigation and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following water trusts—other than irrigation—have been constituted (the area in acres of each district

is shown in parentheses)—*Murray River*—Tuppal Creek (78,080), Bullatale Creek (68,320), Little Merran Creek (157,440), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,001,210); *Lachlan River*—Torrigan, Muggabah and Merrimajeele Creeks (170,240) Condobolin West Weir (4,480), Marrowie Creek (292,640), Ulonga (64,960), Micabil Weir (11,500); *Miscellaneous*—Algudgerie Creek (9,760), Nidgerie Weir (46,880), Great Ana Branch of Darling River (967,339), Collarenebri town water supply (117)—making in all a total area of 2,909,456 acres. Thirteen of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. The following are the Trust Districts (area in acres is shown in parentheses):—*Murray River*—Bama (3,446), Goodnight (1,167), Bungunyah—Koraleigh (1,810), Glenview (661), Brangan (4,933); *Darling River*—Pomona (1,580); *Hunter River*—Blairmore (315)—making in all a total area of 13,912 acres.

The Lowbidgee Provisional Flood Control and Irrigation District (375,000 acres), the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. There are 50 holdings. Another district, Medgun (272,800 acres) near Moree in the North-West is also in operation. There are 20 holdings in the district and the area benefited by controlled floodings is 61,760 acres.

7. River and Lake, and Farm Water Supplies.—During recent years, the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in dry months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

The Farm Water Supplies Act was passed in 1946. Technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams.

8. Underground Water.—Extensive use is made of artesian, sub-artesian, and shallow underground water. Eighty thousand square miles in the northern and western portions are covered by the Great Artesian Basin. Eighty-one Bore Water Trusts and 12 Artesian Wells Districts have been constituted. The Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts settlers maintain the drains. Bore Trusts and Artesian Districts cover about 5 million acres and water is distributed through approximately 7,400 miles of open earth drains. The number of artesian bores giving a flowing or pumping supply at 30th June, 1959, was 1,071 and the estimated total daily flow from 600 flowing bores was 61 million gallons. The estimated flow in 1914–15 was 99 million gallons a day for 372 bores. The deepest bore is Boronga No. 2 (4,570 feet), which also has the greatest flow, namely, 1,010,200 gallons a day. Of the total number of bores sunk, 246 have been installed by the Government in connexion with public watering places, Bore Water Trusts or Artesian Wells Districts.

Of other structural basins of sedimentary rocks, e.g. Murray, Cumberland, Oxley and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock and, in some instances, small scale irrigation, are obtained from porous sandstones in the Moss Vale-Picton area of the south-western lobe of the Cumberland Basin but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin but the centre of this basin lies under the Liverpool Range. The Clarence Basin is relatively unimportant from a groundwater viewpoint.

In other parts of the State, the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 50,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation purposes. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan Valley. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter.

Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney water supply, the Botany sands are now utilized mainly by industry. The Tomago sands provide a considerable proportion of Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain they yield useful stock supplies, mostly at depths between 50 and 250 feet.

It is necessary under the 1955 amendments to the Water Act that all wells and bores be licensed and details of over 13,000 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

Since 1912, the Government has assisted settlers in shallow boring operations for which repayments are required over a period. To 30th June, 1959, the number sunk by the Commission's plants was 4,961 and their average depth was 308 feet.

9. Future Programme.—The programme of post-war development already in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Construction of Burrendong Dam on the Macquarie River is in progress and Keepit Dam on the Namoi River is nearing completion. Legislation has been passed authorizing the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley and a storage dam at Blowering on the Tumut River. The Menindee Lakes storage project, part of the scheme for conserving the waters of the Darling River, is in course of construction. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At 30th June, 1959, work was completed on construction of a diversion weir at Gogeldrie on the Murrumbidgee River from which water will be supplied to a new irrigation area (Coleambally) on the south side of the river comprising not less than 1,000 new irrigation farms. At Wyangala Dam, on the Lachlan River, work has commenced on the temporary lowering of the fixed crest of the dam spillway to enlarge the spillway for passage of greater floods. Investigations are being made concurrently to determine whether the dam can be increased in height to provide a greater storage. Later development will extend to a new area on the north side of the river.

10. Hydro-electricity.—A survey of the use of water for power generation in New South Wales may be found in the previous chapter (*see* p. 222).

§ 3. Victoria.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Victoria were given on page 1117 of Official Year Book No. 37. (*See also* Chapter II.—Physiography, p. 45, of this Year Book.)

(ii) *Administration.* The passing of the Irrigation Act of 1886 put the control of surface waters under the Crown, provided for the establishment of Irrigation Trusts and marked the beginning of irrigation development. In 1905, the Water Act established the State Rivers and Water Supply Commission and gave it control of all irrigation, rural domestic and stock supplies, town water supplies, and flood protection and drainage undertakings outside the Metropolitan area, with the exception of the irrigation area operated by the First Mildura Irrigation Trust and the town water supplies operated by locally constituted waterworks trusts or local governing bodies.

The operations of the First Mildura Irrigation Trust, the waterworks trusts and local governing bodies administering town water supplies, the river improvement and drainage trusts and the various sewerage authorities which control sewerage undertakings in country towns, are also subject to general supervision by the Commission.

2. Works Summarized.—Since 1902, when a great drought emphasized the need for a concerted attack on water problems, the total capacity of water storages including Victoria's half share of River Murray storages has increased from 172,000 to 5,246,850 acre feet at 30th June, 1959. Most of the water from these storages is used for irrigation.

The area actually irrigated has risen from 105,000 acres in 1906 to 965,766 acres in 1958–59 to which 1,220,971 acre feet of water were delivered. The Commission estimated the value of irrigated production in 1957–58 at £53,000,000 representing about one-sixth of the value of Victoria's total rural production.

Town water supply and sewerage works have expanded to the stage where two-thirds of the population outside the metropolitan area is served by a reticulated water supply and one-third is served by a sewerage system. Land drainage, flood protection and river improvement have also been advanced.

A domestic and stock water supply is given to various rural areas throughout the State but principally to the Wimmera and Mallee about which a detailed description is provided later in this chapter.

Besides supplying water to its own irrigation districts, the Commission also supervises the diversion of water by private persons by means of licences and permits. In the last ten years, the area so licensed has increased by 50 per cent. and private diverters now provide an eighth of the irrigation production.

Another notable development in the post-war years has been Soldiers' Settlement Schemes based on irrigation. Altogether, nearly one thousand holdings have been prepared for settlers, including more than 500 in the Murray Valley District, 250 at Robinvale and 125 in Gippsland.

3. **Storages.**—The capacities of the main storages in the various systems (in acre feet) at 30th June, 1959, were as follows:—

Goulburn System:—Eildon Reservoir, 2,750,000; Waranga Reservoir, 333,400; Total, 3,104,100; *Murray-Loddon System*:—Half share of River Murray storages, 1,011,420; Cairn Curran, 120,600; Tullaroop, 60,000; Total, 1,340,230; *Wimmera-Mallee*:—Rocklands, 272,000; Total, 538,900; *Gippsland*:—Glenmaggie, 154,300; Total, 154,340; *Coliban*:—62,730; *Werribee-Bacchus Marsh*:—34,900; *Mornington Peninsula*:—5,800; *Orway*:—1,080; *Miscellaneous*:—4,770; *Grand Total*:—5,246,850.

4. **Extent of Systems and Nature of Irrigated Culture.** The following table shows the areas of the various irrigation systems and the areas under irrigated culture during 1958–59.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: VICTORIA, 1958–59.

(Acres.)

System.	Total Area.	Area Irrigated.									Total.
		Cereals.	Lucerne. (a)	Other Fodder Crops.	Pastures.		Vineyards.	Orchards.	Market Gardens.	Fallow and Miscellaneous.	
					Sown.	Natural.					
Goulburn	1,256,955	4,508	12,330	4,801	336,819	21,547	197	18,356	2,118	6,081	406,757
Murray—											
Torrumbarry Weir ..	377,544	2,651	3,811	3,346	156,272	30,437	4,860	1,086	1,400	2,936	206,799
Yarrawonga Weir ..	267,812	68	10,307	648	81,080	4,455	32	4,375	374	20	101,359
By Pumping ..	35,727	50	277	14	569	527	23,997	1,682	262	371	27,749
Total ..	681,083	2,769	14,395	4,008	237,921	35,419	28,889	7,143	2,036	3,327	335,907
Loddon and other North-											
ern Systems ..	(b) 19,735	936	2,342	983	24,500	3,341	..	3,585	361	1,929	37,977
Southern Systems ..	146,693	412	1,797	912	54,878	2,812	..	578	6,313	2,135	69,837
Mildura and Private											
Diversions ..	(c) 45,000	811	7,888	4,524	62,833	9,683	15,181	5,687	7,767	914	115,288
Grand Total ..	2,149,466	9,436	38,752	15,228	716,951	72,802	44,267	35,349	18,595	14,386	965,766

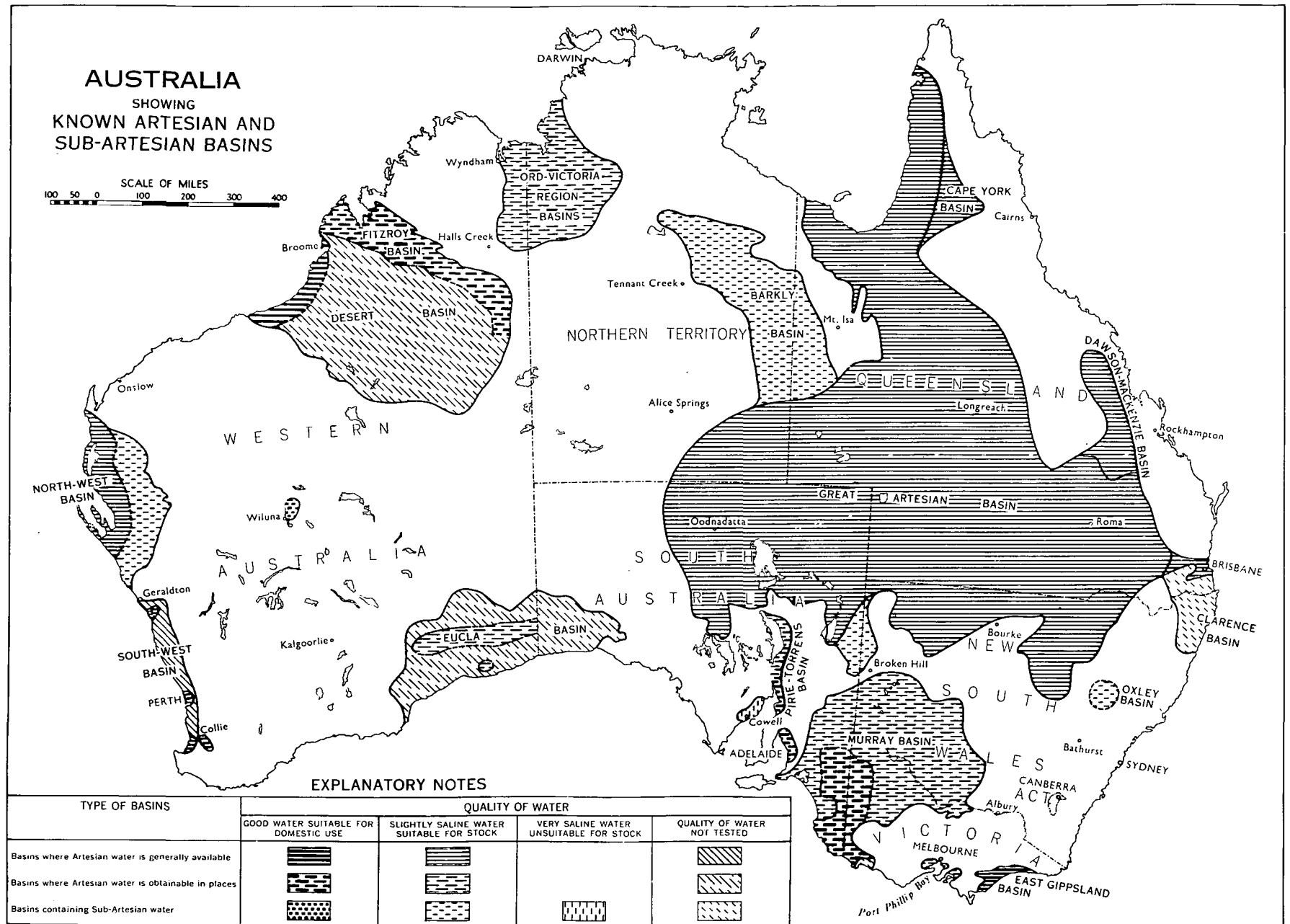
(a) Includes lucerne for both hay and pasture. Mildura Irrigation Trust only.

(b) Area of Campaspe District only.

(c) Area of First

AUSTRALIA SHOWING KNOWN ARTESIAN AND SUB-ARTESIAN BASINS

SCALE OF MILES
100 50 0 100 200 300 400

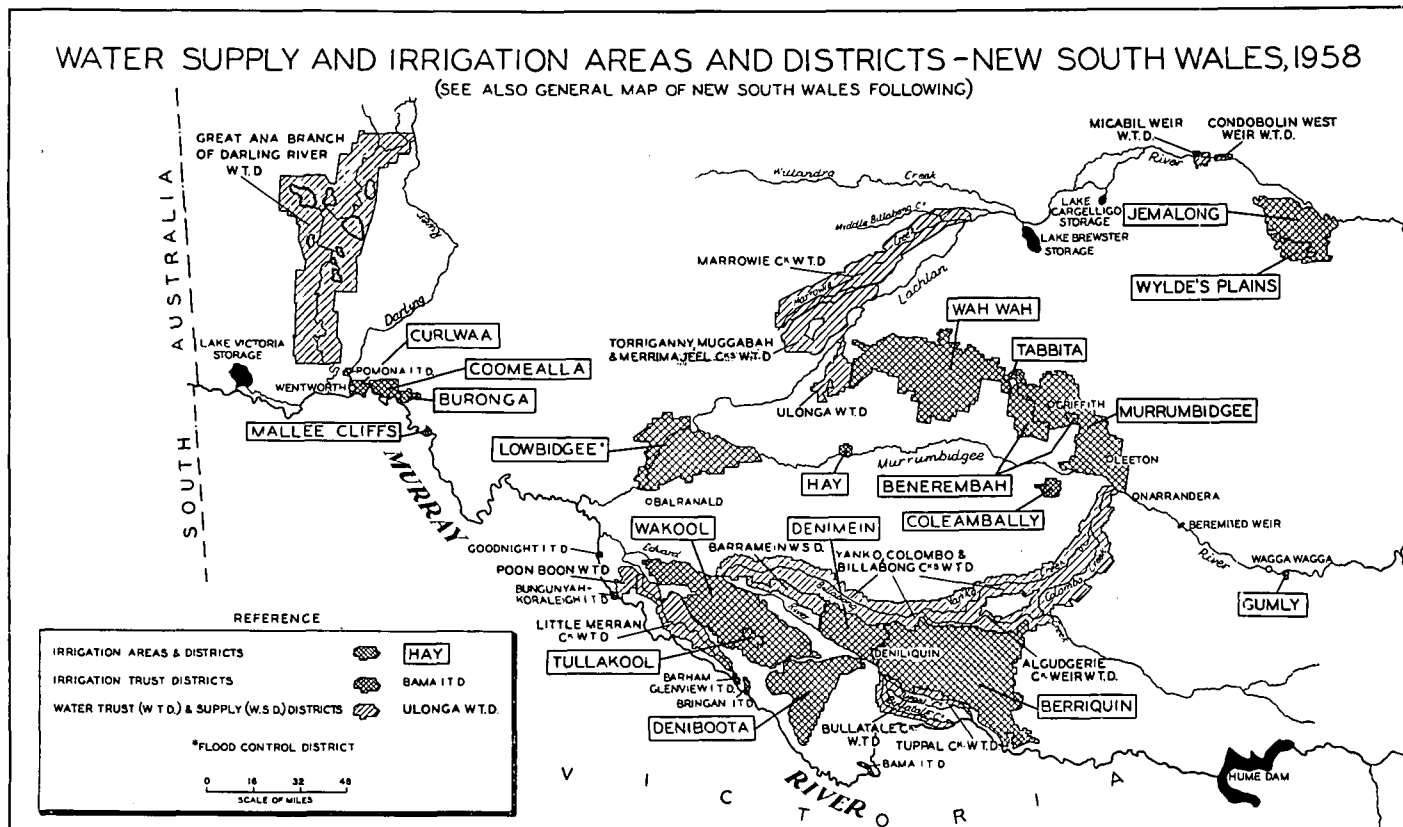


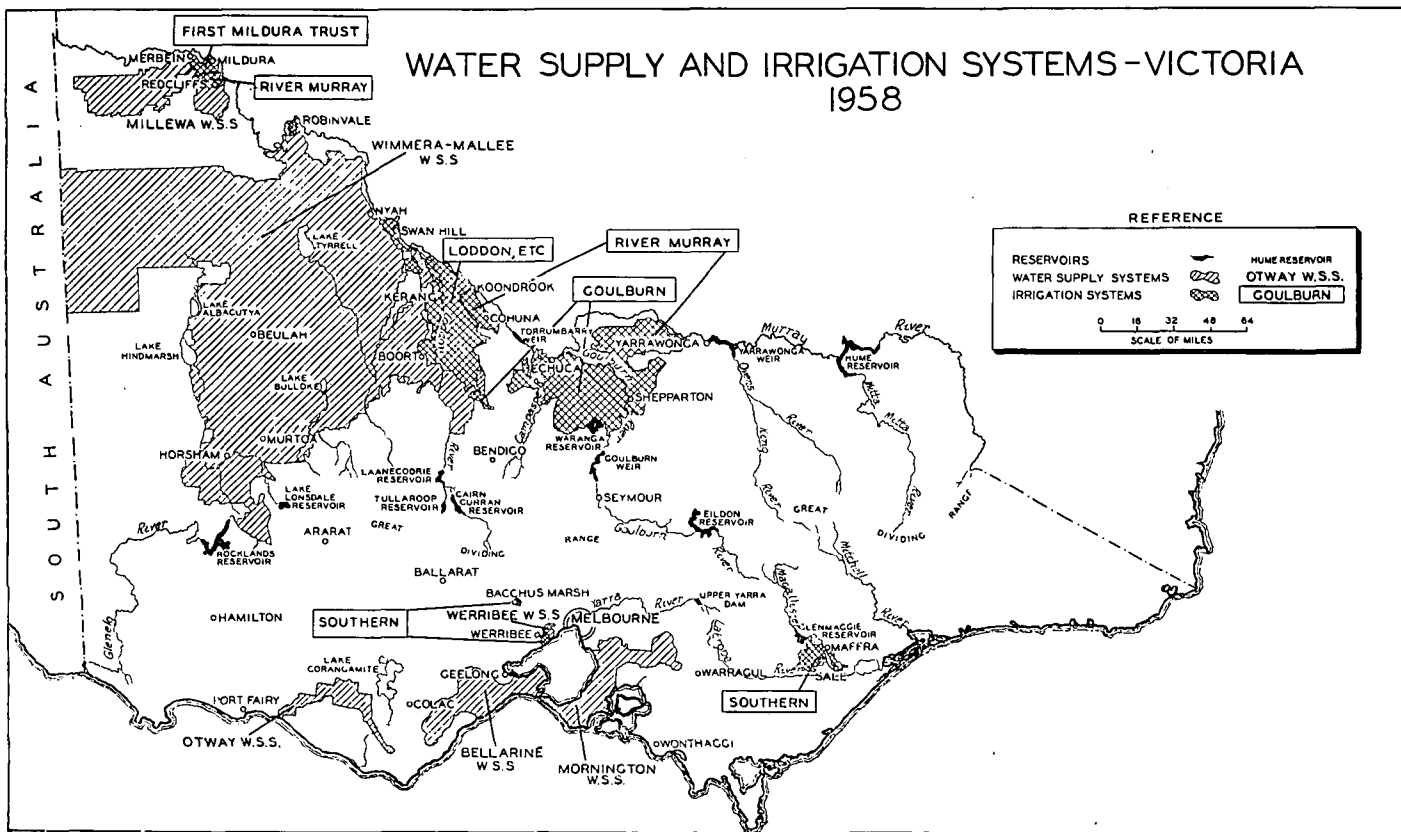
EXPLANATORY NOTES

TYPE OF BASINS	QUALITY OF WATER			
	GOOD WATER SUITABLE FOR DOMESTIC USE	SLIGHTLY SALINE WATER SUITABLE FOR STOCK	VERY SALINE WATER UNSUITABLE FOR STOCK	QUALITY OF WATER NOT TESTED
Basins where Artesian water is generally available				
Basins where Artesian water is obtainable in places				
Basins containing Sub-Artesian water				

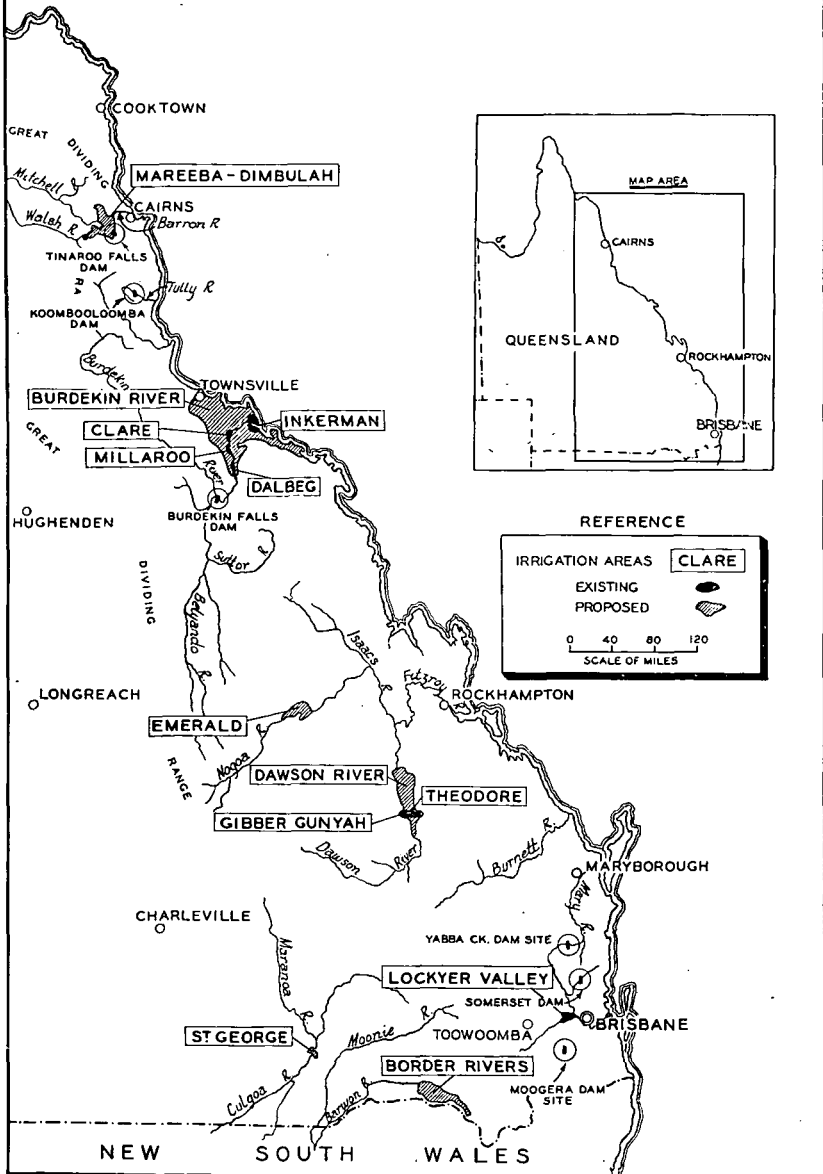
WATER SUPPLY AND IRRIGATION AREAS AND DISTRICTS - NEW SOUTH WALES, 1958

(SEE ALSO GENERAL MAP OF NEW SOUTH WALES FOLLOWING)

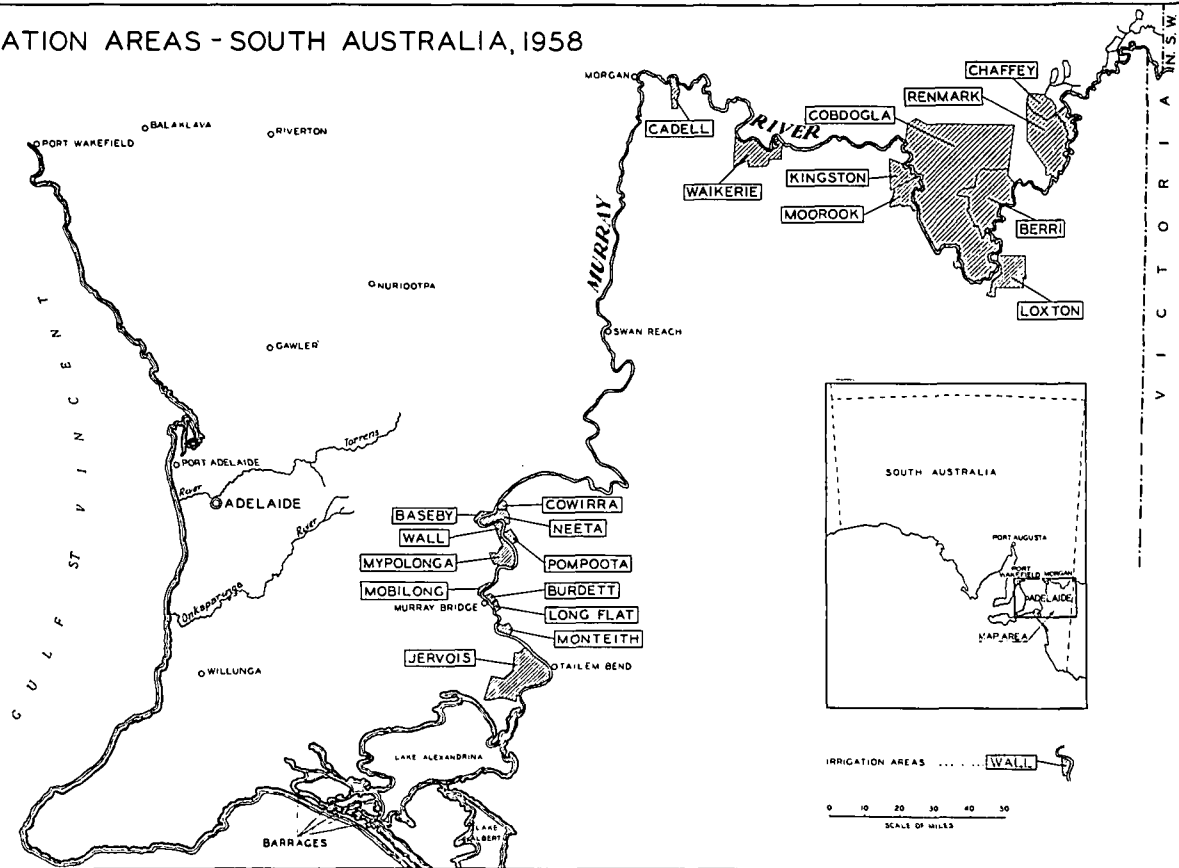




IRRIGATION AREAS-QUEENSLAND 1958

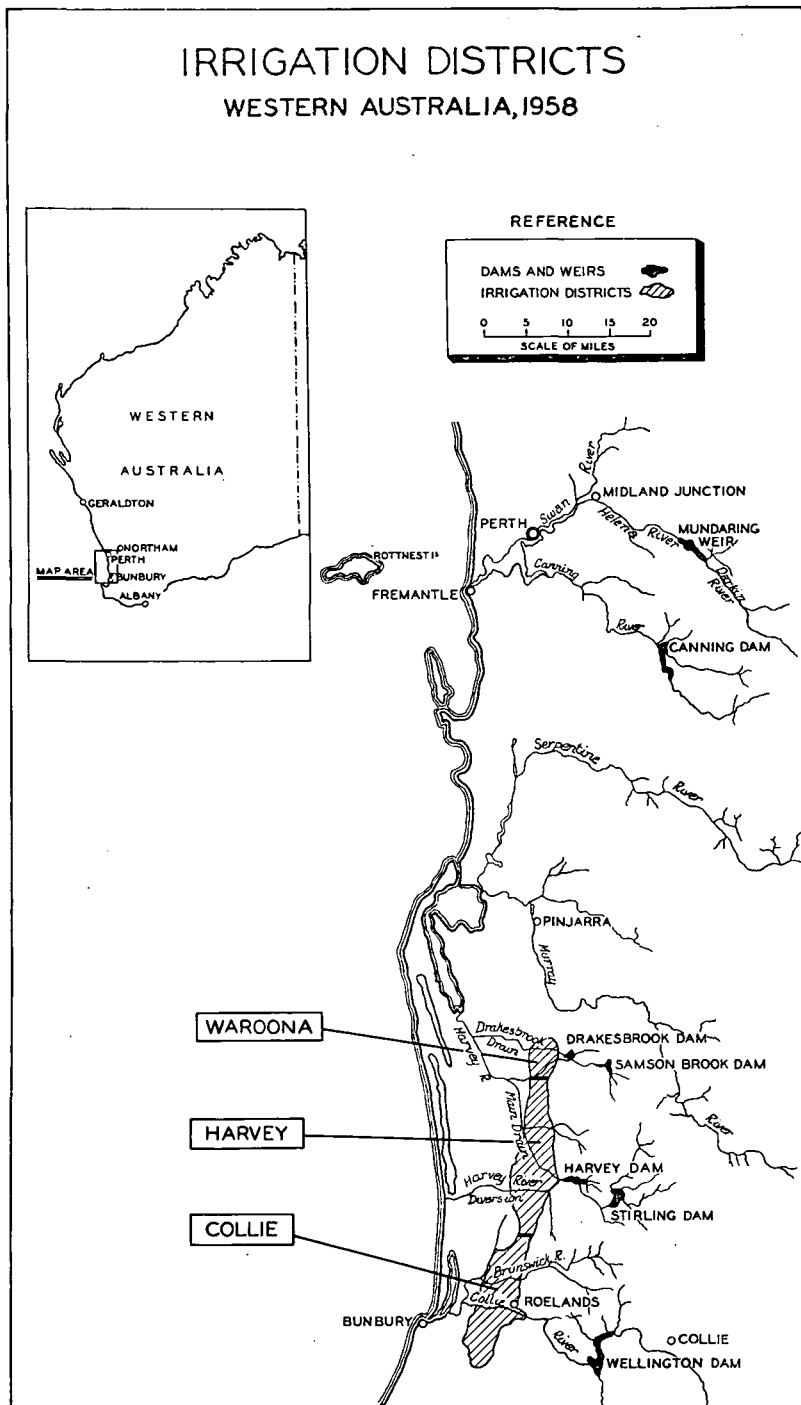


IRRIGATION AREAS - SOUTH AUSTRALIA, 1958



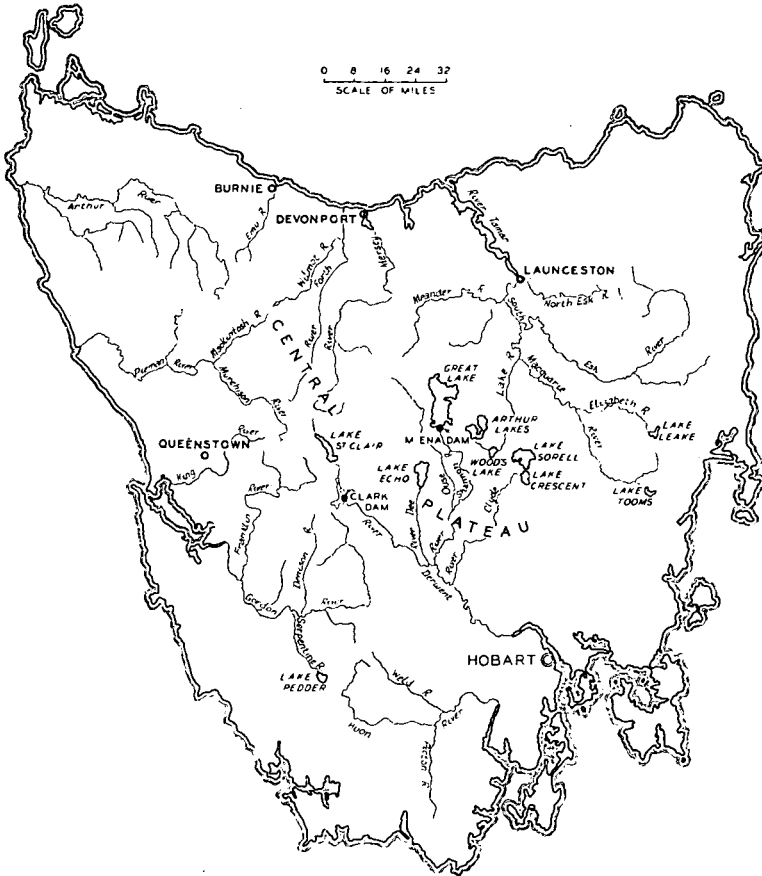
IRRIGATION DISTRICTS

WESTERN AUSTRALIA, 1958



WATER RESOURCES OF TASMANIA

1958



5. *Irrigation Systems.*—(i) *Goulburn.* The storage capacity for this system is provided principally by Eildon Reservoir. The enlargement of the storage capacity of this reservoir was completed in 1956, and will enable 600,000 acres to be irrigated when the necessary distributary works are completed. Water from Eildon Reservoir flows down the Goulburn River to the Goulburn Weir, located near Nagambie, which raises the summer level of the river about 45 feet for the purpose of diversion. From this weir, water is diverted via the East Goulburn Main Channel direct to the irrigation areas around Shepparton. The two western main channels from the weir (one of which was recently duplicated) convey water to the Waranga Reservoir near Murchison in addition to supplying part of the large Rodney District directly.

Two main outlet channels issue from Waranga Reservoir. One serves the western section of Rodney District while the other serves irrigation districts as far west as Boort, and continues into the Wimmera-Mallee Domestic and Stock System to provide a supplementary supply as far as Beulah East.

Water is also supplied to part of the Goulburn System from Cairn Curran Reservoir on the Loddon River, and Eildon itself may be used to supplement supply to the districts along the Murray River.

The main products of the Goulburn districts are dairy produce, fruit, wool and fat lambs. Annual production of canning fruits in the area is about two-thirds of Australia's total.

(ii) *Murray River System.* The waters of the River Murray are used to supply an area of more than 700,000 acres between Yarrawonga and Merbein. The districts between Yarrawonga and Swan Hill, except Tresco near Swan Hill, are supplied by gravitation and those west of Swan Hill are supplied by pumping.

The Murray Valley Irrigation District, which is served from Yarrawonga Weir, comprises 268,000 acres west of Yarrawonga between the River Murray and Broken Creek. Dairy products, fat lambs and canning fruit are the main items produced.

The gravitation system based on Torrumbarry Weir (52 miles downstream from (Echuca) serves an area of about 378,000 acres around Cohuna, Kerang, Koondrook and Swan Hill. Also included in the Torrumbarry system is the Tresco district supplied by pumping from Lake Boga. Dairying and fat lamb raising are again the major industries. Vine fruits and vegetables are grown around Swan Hill and tobacco growing is increasing in importance.

West of Swan Hill lie four Commission districts with a pumped supply—Nyah, Robinvale, Red Cliffs and Merbein. These contain a total of 1,500 holdings devoted largely to dried vine fruit although citrus fruit and table and wine grapes are of some importance. The area around Mildura is controlled by the First Mildura Irrigation Trust, the only irrigation trust operating in Victoria. It serves an irrigated area about half the combined size of the four Commission districts.

(iii) *Southern Systems.* The most important southern system is an area of 130,000 acres around Maffra and Sale, mainly devoted to dairying. This is supplied from Glenmaggie Reservoir on the Macalister River and from the natural flow of the Thomson River when the flow is adequate. Other important irrigation districts are located quite close to Melbourne around Werribee and Bacchus Marsh. These districts are intensively developed for dairying and vegetable growing.

(iv) *Wimmera-Mallee Domestic and Stock Supply System.* This system serves an area of 11,000 square miles or nearly one-eighth of the State. Without the artificial supply of water, development in this area would be meagre and hazardous owing to the constant threat of drought. The main supply is drawn from the Grampians storages and is supplemented by water drawn from the Goulburn and Loddon Rivers, via the Waranga Western Channel referred to previously, although works in progress will make the Wimmera and Mallee independent of supplies from the Goulburn and Loddon River in the near future. In addition, certain areas in the north of the system are supplied direct from pumps on or near the River Murray.

As far as possible, water is distributed in the winter and spring to reduce evaporation losses in 6,500 miles of Commission channels and 3,000 miles of farm channels. It is the

responsibility of the 10,000 farmers served to provide sufficient storage capacity on their farms to meet their domestic and stock needs for the year. In addition to meeting this demand, the Grampians storages provide a water supply for 40,000 people in 47 towns and are used to irrigate a small area near Horsham.

6. Town Water Supplies and Sewerage.—Details of water supplies and sewerage to towns and local authorities by the Commission are given in § 5 of Chapter XIX., Local Government, of this Year Book.

7. Drainage, Flood Protection and River Improvement.—The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia Flood Protection District embracing 80,000 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth £3 million a year.

Another large-scale work, which was completed during 1958–59, is the drainage of 12,500 acres of privately owned land flooded by a recent rise in the level of Lake Corangamite in the Western District. This will free a large area of the lake for grazing in normal years.

By the River Improvement Act of 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and since 1950, 16 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

8. Finance.—The capital liability of the Commission at 30th June, 1959, was £93,500,000. Of this amount, £64,000,000 was expended on irrigation and £7,000,000 on domestic and stock supply systems. Both these amounts were financed entirely by the State. The total liability for urban supply was £12,000,000 of which 60 per cent. was borne by the State and the remainder by the districts concerned.

9. Underground Resources.—Due to inadequate information as to their extent, the underground waters of Victoria have not as yet been greatly utilized. The first stage of a comprehensive survey of these resources by the Victorian State Rivers and Water Supply Commission, which is partly responsible for the location, investigation and development of subterranean waters, has been completed. It provides records of bores in the Mallee, Wimmera and Glenelg regions, and a description of the Murray Artesian Basin. Investigations have also been made into the underground water resources of local areas such as Orbst Flats, Llowalong Estate on the Avon River and elsewhere.

The Murray Artesian Basin underlies an area of 107,250 square miles, of which 26,808 square miles are in Victoria, 28,269 square miles in South Australia and 52,173 square miles in New South Wales. The quality of the water varies from suitable for domestic purposes in much of the South-western part of the basin to saline and suitable for stock in the rest of the basin. Over 300 bores exist in Victoria, ranging in depth from 50 to 3,000 feet and with an average daily flow of 3,000,000 gallons. In the last few years, the Victorian Department of Mines has expanded considerably the work of exploration for underground water.

10. Future Programme.—The main irrigation work under construction is the enlargement of the channels of the Goulburn System to distribute the extra water now available from the Eildon Reservoir and the Cairn Curran Reservoir. A considerable amount of this work has already been carried out. Other large projects include the construction of Castlemaine Reservoir and important new works in the area known as Carrum Drainage District.

11. Hydro-electricity.—Details of hydro-electricity potential and utilization in Victoria may be found in the previous chapter (*see* page 227).

§ 4. Queensland.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Queensland are given in Official Year Book No. 37, page 1122. (*See also* Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* The administration of irrigation and water supply in Queensland is under the control of a Commissioner of Irrigation and Water Supply. For a description of the development of the present administration, see Official Year Book No. 42 and earlier issues.

(iii) *Water Utilization in Queensland.* Queensland's predominant interest in the field of water conservation is the provision of stock and domestic water supplies in its great pastoral areas which contain nearly half of the Commonwealth's cattle and a seventh of the sheep. In addition to the stabilization of water supplies in the pastoral areas and the provision of water along stock routes for travelling stock, the development of irrigated pastures on the eastern seaboard for fattening stock adjacent to meat works and markets has received much attention in later years. The development of projects of water conservation and irrigation on individual farms for irrigation of pastures and fodder crops for dairy herds and for growing small crops and orchard fruits has also received attention.

The State's crops differ from those of other States in that a large proportion is tropical. Sugar-cane is the greatest individual crop, representing in value approximately 45 per cent. of total agricultural production. Approximately 18 per cent. of the sugar-cane acreage was irrigated in 1958-59 and this represented some 42 per cent. of the total irrigated area in Queensland. Queensland is Australia's major tobacco-producing State, and plans are in hand to increase annual production of this crop greatly by means of development under irrigation. The area of tobacco irrigated during 1958-59 represented 94 per cent. of the total plantings of this crop in the State.

2. *Great Artesian Basin.*—(i) *General.* Western Queensland beyond the 20 inch rainfall belt is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry Mineral Field and the Barkly Tableland. It comprises 430,000 square miles or about two-thirds of the total State area of 667,000 square miles. Statistics of bores and flow as at 30th June, 1959, are:—Artesian bores drilled, 2,620; artesian bores still flowing, 1,725; total depth drilled, 3,704,363 feet; deepest bore, 7,009 feet; total estimated flow, 208 million gallons a day. Certain bores previously classified as "ceased" have been inspected and found to be still flowing. Some ceased bores, after deepening, are again flowing. The average depth of artesian bores is 1,408 feet. Some 9,400 sub-artesian bores, within the Great Artesian Basin, have been registered in Queensland. Artesian pressure and flow are both steadily diminishing. The rate of diminution varies widely throughout the basin. Present general average rates of diminution are:—pressure, 1-2 feet/head, total flow, 2-3 per cent. per annum.

The greater part of the artesian discharge is distributed by open earth channels totalling some 15,500 miles in length. Most of the water flowing along these channels is lost by soakage and evaporation and less than 10 per cent. is actually used by stock. The amount of soakage depends largely on the permeability of the earth and the rate of evaporation varies from season to season, but the shape and maintenance of the drains constitute further factors. The effective utilization of this water could be increased by the use of piping to overcome the loss by soakage and evaporation occurring in the open earth channels.

Although artesian beds underlie such a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts, artesian bores are not economical watering facilities, because of depth, limited area to be watered, and difficult terrain for distribution of water by drains. Very few new bores exceed 2,000 feet in depth, and a new bore greater than 3,000 feet in depth is exceptional.

Shallow sub-artesian supplies, of variable quality and volume, are available at depths of less than 1,000 feet over a large area of the basin. These beds are not connected with the artesian beds. An essential practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Although the number of bores has gradually increased over the years, the total flow of all bores has declined since the peak flow of 351 million gallons a day was recorded in 1914. By 1938, the flow was only 230 million gallons a day. The decline gave rise to the fear that supplies were giving out and that the basin was seriously threatened. In 1939, the Queensland Government appointed a committee to ascertain the nature and structure of the Great Artesian Basin with particular reference to the problem of diminishing supply. In its final report, presented in 1954, the majority of the Committee found that the output will continue to decline during the next sixty years when the flow from the remaining flowing bores will be of the order of 110 million gallons per day. At this stage, the discharge from windmills, springs and other leakages and the underflow past the Queensland borders will be of the order of 20 million gallons a day. The total discharge of the order of 130 million gallons a day will be in equilibrium with the recharge of the basin. Numbers of bores on higher ground will cease to flow during the next sixty years and the area served by flowing bores will contract by perhaps 20 per cent.

A programme of strict conservation, involving the restriction of bore flows and improved bore drains, would result in smaller shrinkage of the area served by flowing bores and would actually cost less than the installation and maintenance of pumps or other watering facilities which would be required to provide alternative water supply as additional bores ceased to flow because of a policy on non-restriction. On the other hand, strict conservation would not increase the amount of water ultimately available as perennial flowing supply and would in fact decrease the amount of water passed from intake beds to aquifers within the basin by flattening the hydraulic gradient. The benefit from strict conservation was not considered sufficiently great, nor sufficiently concrete, to warrant implementation.

The quality of artesian water from the greater part of the basin is such that it is not suited for prolonged use for irrigation on most soils. Moreover, artesian supplies are not sufficient for both large scale irrigation and stock-watering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock. Detailed surveys of numerous other sources of underground water in the State, such as the smaller sedimentary basins, the Cainozoic alluvial deposits, recent coastal sands and fractured older rocks, still largely remain to be carried out.

(ii) *Bore Water Areas.* The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity and to conserve artesian supplies by fully utilizing the flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by Local Boards or by the Commissioner of Irrigation and Water Supply, acting as a Board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1958-59 are:—Areas constituted, 72; administered by Commissioner, 56; administered by local boards, 6; number abolished, 10; area benefited, 4,425,382 acres; average rate per acre, 1.8d.; number of flowing bores, 56; total flow, 24,092,000 gallons a day; drains served, 2,754 miles.

3. *Other Basins.*—Two major areas bordering the Great Artesian Basin in Queensland carry artesian water. One is located on the western slopes of Cape York Peninsula and the other in the Dawson-Mackenzie River Basin. A small area in which flowing wells occur (the Gatton Basin) extends from Gatton to the coast.

Sub-artesian water supply from the Barkly Basin which extends into western Queensland from the Northern Territory, is referred to in the section dealing with the Northern Territory.

4. *Stock Route Watering.*—During 1935, a scheme was inaugurated to water adequately stock routes in the western portion of the State including main trunk routes connecting Eromanga to Burketown, Charleville to Normanton, and Clermont to Einasleigh, with branches to railheads, a total distance of 3,117 miles. Watering facilities were also provided on subsidiary routes. Under the Stock Routes and Rural Lands Protection Act of 1944, a co-ordinating board was constituted, representative of Government departments and pastoral interests, under the direction of the Minister for Lands and with an officer of that Department as superintendent whose duty was, *inter alia*, to investigate and implement a long-range, co-ordinated plan for adequate watering of all stock routes throughout the State. Natural waters are being supplemented by artificial facilities at intervals of

about 9 miles. Construction is supervised by the Irrigation and Water Supply Commission and by local authorities. Completed facilities are vested in local authorities for control and maintenance. From 1935 to 30th June, 1959, 471 facilities had been completed and at 30th June, 1959, 66 facilities were under construction or investigation.

5. *Irrigation.*—(i) *General.* Irrigation as a means of stabilizing and increasing agricultural production is continuing to receive attention in Queensland. In addition to the Theodore Irrigation Area on the Dawson River, orthodox projects served by a channel system have been developed at Clare, Millaroo and Dalbeg, all on the Burdekin River, and Gibber Gunyah on the Dawson River. St. George on the Balonne River is also being developed. Construction in the St. George Area is approaching completion and 20 farms have been opened, of which 18 are in production. Construction of the main channel system within the Mareeba-Dimbulah Irrigation Area has continued and 25 existing farms are being supplied with water by gravity. Because of the large variations in both monthly and annual river flows, major developments cannot be undertaken until large storage works are provided. Most irrigation in Queensland is undertaken by private farmers operating under licence and obtaining water by pumping from streams or from natural underground storages. There has been considerable development during recent years of individual water conservation projects (water harvesting) to provide storage for irrigation of pastures, fodder crops and small crops, and orchards. Where available, electricity is the most popular source of power for pumping and the principal areas supplied with electricity are the Burdekin Delta, the Lockyer Valley, and the Darling Downs.

It has been estimated that about two thirds of the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been extensively developed are the Burdekin Delta (Ayr-Home Hill Area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg Area), Lockyer Valley and Redland Bay. Similar development is taking place in other areas such as parts of the Darling Downs.

Furrow irrigation is used for cotton, sugar cane, most tobacco and some other crops. Spray irrigation is adopted to a considerable extent for fruit, vegetables, fodder crops and a small part of the tobacco. Spraying is well suited to the application of water on deep soils by small pumping plants, particularly when the quantity of water available is limited. Use of the border check method in the irrigation of pasture and fodder crops has proved successful and its use is increasing.

The following table shows for each division of the State the number of irrigators and the areas irrigated for the year ended 31st March, 1959.

AREA OF LAND IRRIGATED: QUEENSLAND, 1958-59.

Division.	No. of Irrigators.	Area Irrigated (Acres).							
		Vegetables.	Fruit.	Sugar-cane.	To-bacco.	Cotton.	Other Crops.	Pastures.	Total.
Southern Queensland ..	5,040	21,523	3,943	16,322	2,024	339	31,461	7,326	82,938
Central Queensland ..	535	901	217	18	9	978	5,124	1,493	8,740
Northern Queensland ..	1,574	4,173	716	49,273	5,457	203	1,550	1,583	62,955
Total	7,149	26,597	4,876	65,613	7,490	1,520	38,135	10,402	154,633

The pattern of irrigation in Queensland is unlike that in southern States; the more important developments in tropical and sub-tropical areas are therefore discussed briefly in the sub-sections following. It should be noted that the spring to autumn "irrigation season" of the temperate southern irrigated lands is not applicable, and that round-the-year irrigation is required throughout most of the State, the timing and duration of the summer "wet" season being too variable to enable a definite non-irrigation season to be fixed.

(ii) *Lockyer Valley.* West of Brisbane and within 30 miles of that metropolitan market is the Lockyer Valley, which is portion of the Brisbane River Basin. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation. Despite a mean annual rainfall of 30 inches, the variation is great, and irrigation is necessary for continuous agricultural production. Surveys suggest that some 60,000 acres of land highly suitable for irrigation are available. Of this area, only about 30 per cent. is under irrigation, the number of pumps operating from wells and open water exceeding 550 and 600 respectively. Over 60 per cent. of the farmers operate electric pumps for irrigation purposes and a special policy designed to encourage such development is fostered by the Southern Electric Authority of Queensland. The Irrigation and Water Supply Commission has constructed a number of small weirs on Lockyer Creek with a total storage of 1,370 acre feet. These also tend to augment and conserve underground supplies. The Irrigation Research Station established at Gatton has been converted to a Regional Experimental Farm under the control of the Department of Agriculture and Stock.

The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

(iii) *Burdekin River.* The Burdekin River, which enters the sea between Townsville and Bowen, is a major factor in the life of North Queensland. In most years, heavy floods from a catchment twice the size of Tasmania cause extensive damage and traffic disruptions. On the other hand, the fertile delta area, with its underground water supplies at shallow depth, has contributed greatly to the agricultural prosperity of North Queensland. Present development is confined to the delta area. The average annual rainfall of this area is some 41 inches, but the major part falls in the months December to March. Consequently sugar growers and other farmers have tapped the underground water resources of the delta to obtain supplies in the dry periods. Sugar is the main irrigated crop, though citrus fruits, pineapples, vegetables and tobacco are also irrigated. The irrigated area is in excess of 30,000 acres, up to 1,000 acre feet of water being drawn daily from underground sources.

In the Home Hill-Inkerman areas on the south side of the Burdekin, water is obtained from shallow wells by electric pumps supplied from a local power station controlled by the Townsville Regional Electricity Board. Around Ayr, on the north side of the river, electric power from the mains of the Townsville Regional Electricity Board is now being used in place of individual internal combustion engines. At both Home Hill and Ayr, water for domestic supply is raised by a windmill on each property.

In 1940, the Burdekin River Trust was formed to safeguard the sugar areas of the Delta from erosion and floods. An irrigation research station studies the development of pastures and irrigated crops under local conditions.

A major multi-purpose scheme, involving irrigation, flood control and hydro-electric power generation, is being investigated by the various interested government departments under the general supervision of the Burdekin River Authority. The development envisaged includes a dam storing 6,584,000 acre feet, which would make water available for the irrigation of at least 250,000 acres. The principal industries anticipated are tobacco-growing, dairying, and cattle-fattening, with sorghum, sunflowers, peanuts, cotton and sugarcane as other possible forms of production. The projected scheme will change the Burdekin from a mixed blessing to one of the Commonwealth's greatest resources for agricultural and industrial production.

The Clare Irrigation Area, constituted in 1949, the Millaroo Irrigation Area, constituted in 1952, and the Dalbeg Irrigation Area, constituted in 1953, are at present predominantly used for tobacco production. Located from 25 to 65 miles upstream from the mouth of the Burdekin, these areas comprise 12,000 acres and obtain irrigation waters from central pumping stations drawing initially on the unregulated flow of the Burdekin. A temporary storage of 6,700 acre feet capacity has been constructed about 79 miles upstream from the mouth of the Burdekin. At 30th June, 1959, 146 farms were occupied and total production for 1958-59 was valued at £795,000.

(iv) *Dawson Valley.* The Dawson River, a 392-mile long tributary of the Fitzroy River, rises in the Carnarvon Range and joins the Mackenzie River to form the Fitzroy 50 miles west of Rockhampton. Lands bordering the river in its northerly course of about 170 miles before its confluence with the Mackenzie River are commonly termed

the Dawson Valley. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923. Storage for the scheme was to be provided by a dam of 2,500,000 acre feet capacity at Nathan Gorge. Much investigational and survey work on the scheme was carried out, but the general financial depression and limited loan funds brought about the cessation of this work. However, the initial step in construction had been completed, comprising a weir on the river at Theodore and irrigation works to serve an area of 3,500 acres supplied from a central pumping station. Two additional weirs have since been built, giving a total storage of 10,280 acre feet. Pasture, vegetables, cotton, fruit and dairy products are the principal produce. Attention has recently been given to the former plans for the valley and earlier work is now under close scrutiny as a prelude to future development. Construction of works to serve some 2,400 acres at Gibber Gunyah, adjacent to the existing Theodore Area, has been completed and 19 farms have been occupied.

(v) *Mareeba-Dimbulah Area.* The existence of large areas of sandy soils suitable for tobacco production in the valleys of the Walsh and Barron Rivers in the neighbourhood of Mareeba and Dimbulah has led to large-scale investigations into possible irrigation development in the area. Surveys indicate that 40,000 acres of land suitable for irrigated culture, including 32,000 acres suitable for tobacco, are available. In 1958-59, some 4,116 acres of high-grade tobacco were grown. Seven weirs with a combined capacity of 2,650 acre feet have been completed on a number of streams to store water for irrigation.

During 1952, a report on the utilization of waters of the Barron and Walsh Rivers was prepared and the establishment of an irrigation undertaking approved by the Queensland Government. The projected undertaking provides for construction of a major storage at Tinaroo Falls on the Barron River to store 320,000 acre feet, and construction of irrigation works to serve 78,000 acres commanded by this storage. In each case, construction has commenced. Further development by construction of a second storage at Nullinga on the Walsh River has been deferred for the present. Tobacco will be the basic crop while peanuts, vegetables, maize, cotton and stock fattening also appear suitable.

(vi) *Border Rivers Project.* The development of the rivers constituting portion of the border between Queensland and New South Wales is under the authority of the Dumaresq-Barwon Border Rivers Commission on which each State is represented. For information on the project see page 248.

(vii) *Balonne River.* The St. George Irrigation Area has been constituted and construction of works to serve some 11,000 acres is in progress. Water supply for the area will be obtained by pumping from the combined weir and road bridge on the Balonne River at St. George.

6. *Channel Country.*—Extensive investigations have been made of the Channel Country fed by inland rivers in the south-western corner of the State. This country is intersected by shallow and irregular flood channels through which huge volumes of flood waters pass in favourable seasons; consequent on the flooding, a heavy growth of natural pastures is produced on the flooded lands, providing feed in quantities far in excess of that required for the normal stock population of the area. If the occurrence of flooding could be made more reliable by means of storages to create artificial floods, the pastoral resources of the area would be enormous. However, inquiries directed on these lines have revealed that little can be done to increase or stabilize the turn-off of fat cattle by artificial storage.

At 30th June, 1952, 41 watering facilities, at an estimated cost of £277,000, had been proposed under a Commonwealth-State agreement for stock routes through, and in the approaches to, the Channel Country. By 30th June, 1959, 31 had been completed, while four sub-artesian bores and one excavated tank were under construction.

7. *Hydro-electricity.*—An outline of Hydro-electricity Schemes operating in Queensland is given in the previous chapter (see page 230).

§ 5. South Australia.

1. *General.*—(i) *Rainfall.* Brief particulars of the climatic conditions in South Australia are given on page 1129 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act governing the supply of water through mains in water districts for townships and farm lands. The Water Conservation Act provides for the construction of storages in non-reticulated areas and authorizes the Minister to "divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under, or on, any land entered upon for the purpose of supplying water to the inhabitants of any water district".

(iii) *Methods of Catchment and Conservation.* Early in the history of the State the rights to all running streams, springs and "soaks" were vested in the Crown. The Water Conservation Act was passed in 1886 and, up to 30th June, 1959, more than 550 dams, tanks and "rainsheds" had been built or acquired by the State, in addition to 460 wells and 340 bores, at a total cost of £1,759,395. The "rainsheds" comprise timber frameworks roofed with galvanized iron to catch precipitation which is delivered to storage tanks and is available for surrounding settlers and travellers. Rainshed catchments vary from a few hundred square feet to four acres, discharging into tanks ranging from 2,000 to 500,000 gallons. Over most of the State, extraordinary precautions are taken to counteract evaporation. Pipelines in preference to open channels and covered storages are used to reduce evaporation. Meters are attached to practically all services to check usage by individual consumers.

2. *Irrigation.*—In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped on to the land or gravitated from the river. The upper Murray of South Australia and the Mildura area of Victoria formed the cradle of Australian irrigation. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. Including land allotted for War Service Land Settlement purposes, the Department of Lands administers in the Murray Valley an area of 32,758 acres of irrigable high land together with 9,449 acres of reclaimed swamp and 167,175 acres of non-irrigable land in the irrigation areas and 29,747 acres of land temporarily leased and reserved for commonage or other purposes, amounting in all to 239,129 acres. In addition, the Renmark Irrigation Trust controls 20,557 acres, of which 9,550 are irrigated. Water used for irrigation purposes in 1958–59 in the high land irrigation areas controlled by the Department of Lands, excluding War Service Land Settlement areas in course of development, was approximately 100,000 acre feet and, in addition, approximately 63,000 acre feet were applied to the reclaimed areas. In the Renmark area, approximately 29,000 acre feet of water were used for irrigation in 1958–59. The production of the upper Murray areas is almost exclusively fruit and vines. Principal crops are sultanas, currants, lexias, apricots, peaches, nectarines, pears and figs (mainly for dried fruit), wine grapes, and citrus fruits. Before irrigation, these semi-arid lands were of little productive value.

Renmark Irrigation Trust is administered by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold, self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of channel for reticulation to 9,550 acres.

The following tables show the acreage devoted to various crops in the government-controlled and Renmark Irrigation Trust areas on the upper Murray, and in the government-controlled reclaimed swamp districts near the mouth of the Murray, which are devoted to dairying.

AREA OF LAND UNDER IRRIGATED CULTURE, 1958-59.
IRRIGATION AREAS ADMINISTERED BY THE DEPARTMENT OF LANDS AND
THE RENMARK IRRIGATION TRUST.
(Acres.)

Area.	Vine Fruits.	Tree Fruits.	Citrus Fruits.	Sown Pastures.	Total.
<i>Areas Administered by the Department of Lands.</i>					
<i>Orchard Land—</i>					
Berri	5,104	1,104	1,320	..	7,528
Cadell	564	154	112	..	830
Waikerie	1,826	624	1,288	..	3,738
Cobdogla	3,754	172	194	..	4,120
Moorook	323	129	186	..	638
Kingston	222	87	247	..	556
Mypolonga .. .. .	..	337	527	..	864
Chaffey—Ral Ral Division ..	795	103	8	..	906
<i>Total</i>	<i>12,588</i>	<i>2,710</i>	<i>3,882</i>	<i>..</i>	<i>19,180</i>
<i>War Service Land Settlement—</i>					
Cooltong Division	375	255	482	..	1,112
Loxton area	3,067	1,100	2,185	..	6,352
Loveday Division	235	47	22	..	304
<i>Total</i>	<i>3,677</i>	<i>1,402</i>	<i>2,689</i>	<i>..</i>	<i>7,768</i>
<i>Reclaimed Swamp Land—</i>					
Monteith .. .. .	..	..	..	960	960
Mypolonga .. .. .	..	..	..	1,314	1,314
Wall .. .. .	..	..	..	490	490
Burdett .. .. .	..	..	..	109	109
Mobilong .. .. .	..	..	..	429	429
Long Flat .. .. .	..	..	..	339	339
Neeta .. .. .	..	..	..	561	561
Pompoota .. .. .	..	..	..	422	422
Cowirra .. .. .	..	..	..	567	567
Jervois .. .. .	..	..	..	3,602	3,602
<i>Total</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>8,793</i>	<i>8,793</i>
<i>Renmark Irrigation Trust.</i>					
<i>Renmark Irrigation Trust ..</i>	<i>7,330</i>	<i>950</i>	<i>1,270</i>	<i>..</i>	<i>9,550</i>

3. Water Supply Schemes.—(i) *Adelaide Metropolitan Water Supply.* Adelaide derives its water from five reservoirs in the nearby Mount Lofty Ranges, and by means of pumping stations and a pipeline from the River Murray at Mannum. The reservoirs have a storage capacity of 51,497 acre feet and the pipeline a capacity of 53,627 acre feet a year. The consumption for the year 1958-59 was 80,476 acre feet, equivalent to a consumption of 108 imperial gallons per head per day. The capital cost to 30th June, 1959, was £29,936,090.

(ii) *Country Reticulated Supplies.* Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa, and South Para Reservoirs (36,290 acre feet) in the Barossa Ranges. To supplement these storages, a branch main from the Mannum-Adelaide Pipeline feeds into Warren Reservoir.

Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, with connexions to the Warren system and the Morgan-Whyalla Pipeline. The 223-mile pipeline from Morgan on the River Murray to Whyalla was designed to deliver annually 4,400 acre feet to Whyalla and 3,300 acre feet to the northern districts. Branch pipelines have been constructed to Jamestown, Caltowie, Peterborough, Clare and Woomera. Yorke Peninsula is now being reticulated. A pipeline has been laid from the Bundaleer Reservoir, and the reticulation system will be extended south to Edithburgh. Work is in progress on the construction of the Myponga Reservoir. A concrete arch dam is being built on the Myponga River, impounding 22,000 acre feet of water. This storage will be used to supply towns and country lands south to Normanville and as an additional source of supply for the Adelaide Metropolitan area.

Water conservation and distribution works in country districts have cost £31,203,396 (exclusive of river control and irrigation works on the River Murray) and contain 6,349 miles of water mains. The capacity of country storages is 71,569 acre feet, serving a population of approximately 306,500.

4. *Underground Water.*—The occupied portion of South Australia is, on the whole, well endowed with underground water and the extent of the several artesian basins is reasonably well known. There are also considerable areas, notably in the south-east of the State, in which ground water occurs. Quality varies widely, but a great deal is at least useful for watering stock and this is the major use to which it is put.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. However, deep boreholes have been drilled by the government to provide watering places along stock routes, and pastoralists rely largely on supplies from non-pressure aquifers at shallower depths. Marree township is supplied from this source, its deepest bore being 575 feet.

The use of the waters of the Murray Basin is essential to settlement in the Murray Mallee country and in the south-east of the State, especially for farms and township supplies to Mount Gambier, Naracoorte, Bordertown, Pinnaroo, Penola, Lamerook, Coonalpyn, Nangwarry, Mount Burr, Kingston (S.E.), Parilla and Karoonda. The deepest bore in this Basin is 1,805 feet. Towns elsewhere which are supplied from bores include Mount Barker, Port Lincoln, Peterborough, Warooka and Willunga.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, for which the Government maintains about 30 drills. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne and considerable tracts of previously undeveloped country in the Upper South-east, Kangaroo Island and Yorke Peninsula have been found to have usable water and are now being opened up.

Ground water resources surveys are undertaken continually by departmental geologists, the results being published in various bulletins and reports issued from time to time. The *Groundwater Handbook* published in 1959 by the Department of Mines provides a comprehensive detailed review of the State's ground water resources.

5. *Farm Water Schemes.*—While the Department of Mines and the Engineering and Water Supply Department give assistance to individual farmers in the provision of supplies from underground sources, a great part of the farming areas obtains water supply under pressure from the extensive distribution systems connected to various reservoirs or the Murray River.

6. *South-Eastern Drainage.*—Nature has played an ironic prank in the south-east of South Australia where it has been necessary to construct costly drainage schemes to dispose of surplus water. The area comprises a series of valleys or flats separated by low ranges parallel to the coastline which prevent natural drainage. The highest "range" is approximately 50 feet above the adjacent flat and the most easterly flat, some 50 miles from the coast, is 200 feet above sea level. The ranges are generally of poor soil or stony but the flats are fertile.

The Millicent Drainage System was completed in 1885, when 100,000 acres were reclaimed by 225 miles of drains at a cost of £150,000, which was included in the land allotment prices.

The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders.

The area is bounded on the east by the State Boundary, and on the west by the sea coast. It extends from about 20 miles north of Kingston southerly to near Millicent and Kalangadoo. Up to 1948, about 430 miles of drains had been provided at a cost of £720,876. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948, the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, involving an excavation of 8,100,000 cubic yards has been completed, and a start has been made on the northern section of 140,000 acres.

The capital cost of drainage in the South-Eastern Drainage Area System at 30th June, 1959, was £4,564,951, and the length of drains constructed was 666 miles.

§ 6. Western Australia.

1. General.—(i) *Rainfall.* Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* Natural water rights in the State, with few exceptions, are vested in the Crown. Irrigation districts are administered by the Minister for Water Supply, Sewerage and Drainage under the Rights in Water and Irrigation Act 1914–1951, and he is advised by an Irrigation Commission representing the local irrigationists and governmental technical and financial branches. Water supplies in country areas in Western Australia coming under the provisions of the Water Boards Act 1904–1954, and the Country Areas Water Supply Act 1947–1957 are controlled either by the local authority or by the Water Supply, Sewerage and Drainage Department. Those controlled by the Department (except for some local water supplies to country towns still under the provisions of the Water Boards Act) form the Country Areas Water Supply, consisting of the Goldfields and Agricultural Water Supply, the Great Southern Towns Water Supply and local water supplies to country towns and districts. The Department also controls individual water supplies serving isolated mines, stock routes, and agricultural areas.

2. *Irrigation.*—(i) *South-West.* The main irrigation areas are situated along the South-Western Railway between the towns of Waroona (70 miles from Perth) and Dardanup (116 miles from Perth).

The Water Supply, Sewerage and Drainage Department controls three irrigation districts—Waroona, Harvey and Collie River—the total area irrigated in these districts during 1958–59 being 25,252 acres and the total water used approximately 90,000 acre feet. The total of acre waterings (that is, the number of acres watered multiplied by the average number of waterings) was 148,632. Investigations are being carried out with a view to irrigating a further 30,000 acres south of the Collie River Irrigation District.

The Waroona Irrigation District (10,397 acres) is supplied from Drakes Brook Dam (1,854 acre feet capacity) and Samson Brook Dam (6,624 acre feet), the Harvey Irrigation District (37,269 acres) from the Harvey Weir (8,370 acre feet) and Stirling Dam (46,368 acre feet), and the Collie River Irrigation District (36,020 acres) from the Wellington Dam (29,440 acre feet).

The following table, which shows acre waterings supplied to crops in the irrigation districts of Harvey, Waroona and Collie River during the seasons 1954–55 to 1958–59 illustrates the general growth of these irrigation schemes.

IRRIGATION, WESTERN AUSTRALIA: ACRE WATERINGS(a).

Year.	Pasture.	Fodder.	Potatoes.	Vegetables.	Orchard.	Flax, Broom Millet, and Preparation of Ground.	All Crops.
1954–55	112,659	3,268	2,363	3,294	845	121	122,550
1955–56	108,468	3,599	1,834	3,452	946	127	118,426
1956–57	129,502	3,757	3,995	3,317	1,024	119	141,714
1957–58	133,634	5,384	3,299	2,947	972	..	146,236
1958–59	136,940	6,324	1,858	2,495	1,014	1	148,632

(a) Number of acres watered multiplied by average number of waterings.

(ii) *General.* In 1958–59, the total area irrigated in Western Australia was 44,102 acres made up of vegetables (8,211 acres), fruit (6,850 acres), vineyards (630 acres), pastures (24,982 acres) and other crops (3,429 acres).

An area of approximately 650 acres of Gascoyne River flats adjacent to Carnarvon is under irrigated cultivation. The principal crops are bananas and beans but others such as tomatoes are also grown. For this agriculture, some 130 acre feet of water a week are drawn from river underflow.

On the Liveringa flood plain, 65 miles south east of Derby, commercial production of rice has been achieved following successful experimental work. Irrigation water from the Fitzroy River is diverted through Uralla Creek, an anabranch, for 25 miles to the rice growing area where a natural storage of approximately 1,200 acre feet exists. During periods of low flow in the Fitzroy River, the supply of water is augmented by pumping.

The Ord River in the Kimberley Division of Western Australia traverses a tropical area served with monsoonal rains of irregular incidence and quantity, varying from 20 inches in the south to 30 inches in the north. The hottest months (December to March) are also the months of highest rainfall. Communications and population are sparse. The Western Australian Government is considering a proposal to build a dam to conserve 3,000,000 acre feet of water, equipped with a hydro-electric plant, which might supply water for an area of some 200,000 acres agriculturally and topographically suitable for irrigation. Investigations show that the climate and soil conditions are suitable for sugar cane, rice, cotton, safflower and various oil seeds. The economic production of these and other crops, as well as the possible use of such irrigation areas for fattening of cattle, is being examined at the Kimberley Research Station on the Ord River.

3. *Water Supply Schemes.*—(i) *Metropolitan.* Particulars relating to the Metropolitan Water Supply are given in § 5 of Chapter XIX., Local Government.

(ii) *Goldfields and Agricultural Water Supply.* Western Australia has one of Australia's most spectacular water supply schemes, and a brief account of its development will be found on page 1134 of Official Year Book No. 37. Mundaring Reservoir on the Helena River, 26 miles from Perth, is the source of water supplied to the Eastern Goldfields and has a capacity of 62,560 acre feet and a catchment of 569 square miles. The water passes through 346 miles of main, mostly steel and 30 inches in diameter, equipped with eight pumping stations.

Maximum pumping capacity from No. 1 Pumping Station at Mundaring Reservoir is nominally 15.9 million gallons a day. The total capacity of all receiving, regulating, standby and service tanks along the main pipe line is 154 million gallons which includes three standby reservoirs at Kalgoorlie having a combined capacity of 60 million gallons.

Hundreds of miles of branch pipe lines have been laid to mining areas, agricultural areas and country towns, a notable one being the Norseman extension of 101 miles. The system serves some 74 towns and water is reticulated to over 2,000,000 acres of mixed farming lands. The total length of pipe lines is 2,756 miles and the number of services is 21,799. The total quantity of water pumped from Mundaring in 1958–59 was 3,002 million gallons. The total cost of the scheme to the State Government to the end of 1958–59 was £11,856,953. Under the terms of the Comprehensive Water Supply Scheme the Commonwealth Government has contributed a further £2,196,486 making a total cost of £14,053,439.

District water supply schemes established for the purpose of supplying certain country towns and mixed farming lands have been absorbed into the Goldfields and Agricultural Water Supply Scheme. For further particulars see Official Year Book No. 37, page 1135.

(iii) *Comprehensive Water Supply Scheme.* A comprehensive water supply scheme to supplement water supplies to the goldfields, agricultural areas, and country towns, authorized in 1947 as a joint work between the Commonwealth and State and estimated to cost £10,000,000 is at present (1959) under construction in two main parts. The northern section is an enlargement and extension of the Goldfields and Agricultural Water Supply. The southern section is the Great Southern Towns Water Supply. Linked with Wellington Dam (initially an irrigation work on the Collie River) by 80 miles of 30-inch diameter pipe through three pumping stations to Narrogin, it now supplements the existing water supplies to country towns along the Great Southern Railway, north to Brookton and south to Katanning. The raising of the impounding wall of Wellington Dam to increase its storage to about 150,000 acre feet is in progress. Expenditure on the Scheme to 30th June, 1958, amounted to £6,618,037.

(iv) *Local Water Supplies.* Local schemes other than above comprise those in the remaining agricultural and mining areas, including the North-West and Kimberley Divisions. Sixty-two separate reticulated water supplies serve country towns and districts. Of these, 55 are controlled by the Water Supply, Sewerage and Drainage Department and the remainder by local authorities.

(v) *Commonwealth and State Government Railways.* Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the Railways from other sources, e.g., Public Works and Metropolitan Water Supply Departments.

(vi) *Catchments.* The water supplies to these country schemes come from stream flow, dams, tanks, wells and bores.

A total of 66 rated stream gauging stations is operating in the South-West and Kimberley Divisions. Three types of catchment peculiar to this State developed in connexion with local water supplies and deserving special mention are:—rock catchments, which consist of mostly clear granite out-cropping rock, from which the overall run-off from rain amounts to approximately 40 per cent.; bituminous catchments, which are areas which have been sealed with emulsified bitumen—some hundreds of acres have been so treated and yield a run-off of approximately 80 per cent. of the rainfall; and roaded catchments, where selected areas of a catchment are cleared, graded and formed into roads to assist in obtaining additional rainfall run-off.

4. *Underground Water.*—Individual farmers, orchardists, market gardeners and others pump ground water from wells and bores, using windmills, engines or electric power. Water is also obtained from artesian and sub-artesian bores. The Public Works Department hires out to local authorities boring plants which are then hired out to farmers to assist their boring operations. In addition, the department operates its own boring plants and contracts with private firms in connexion with water supply works.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins have been made as a result of the extensive geological surveys in connexion with oil exploration during the past ten years and most of these results are now in the course of publication. In view of the importance of finding water for towns and farms in low rainfall areas outside the sedimentary basins, the Geological Survey of Western Australia and the Commonwealth Bureau of Mineral Resources recently combined to apply geophysical prospecting to the search for water in weathered granites in the south-western part of the State. The results of this work so far have been promising.

§ 7. Tasmania.

1. *General.*—(i) *Rainfall.* Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Main Purposes of Conservation and Utilization.* Owing to Tasmania's fortunate rainfall position, scarcity of water is not a serious problem in normal seasons. Conservation of water for hydro-electric generation is the predominant interest, and conservation for domestic and industrial purposes is more important than irrigation. Conservation of water on farms is not practised to the same extent as on the mainland, probably because running streams and good rainfall are on a more generous scale. Provision of artificial storages (apart from house tanks) is rare, but progressive landowners are beginning to take advantage of modern plant, such as bulldozers, to provide small excavated storages on their properties. Underground water is of poor quality but a small quantity, which has been exploited to a limited extent by bores and windmills, exists over an area in the Midlands. Geological conditions do not appear to favour the utilization of underground water except on a minor scale.

(iii) *Administration.* On 1st September, 1958, a Rivers and Water Supply Commission was brought into operation with control over all natural waters. The Commission does not own the waters but may take them subject to existing rights, of which the most important are riparian rights. In addition to licensing the use of water, the Commission supervises

the construction of municipal water supply schemes which was previously a function of the Water, Sewerage and Drainage Board. It has similar functions in relation to river improvement and irrigation.

2. Hydro-electricity.*—Tasmania depends entirely on water for power development. The Hydro Electric Commission, the authority controlling the generation of electricity in Tasmania, conducts a continuous survey of the water power resources of the State assisted by modern methods such as aerial photography and geophysical exploration.

Much of the water potential is located on the Central Plateau with an area of about 1,500 square miles at an altitude of from 2,000 to 4,000 feet and subject to rainfall of from 30 inches a year in the east to 80 inches on the western perimeter. On the plateau are a large number of lakes which provide the means for storage at low cost. These include Great Lake with an area of 58 square miles, Lake St. Clair and Lake Echo each more than 12 square miles, and others of smaller area.

The Derwent River and its tributaries which flow south-easterly carry off by far the greater part of the water which falls on the plateau and these rivers are therefore the most abundant source of power. They have been the cheapest to develop to date and most of the existing generating stations are located on them.

The three main rivers running westerly from the plateau—the Arthur, Pieman and Gordon—have only a small portion of their catchment areas at high level, but they run through regions of high rainfall and their power potentials are considerable. However, because of inaccessibility and climate, development of these rivers may be rather expensive and has been deferred so far in favour of more convenient schemes.

Rivers draining from the plateau towards the north and north-west coast, including the Emu, Forth and Mersey, have small catchments at high levels and no natural storages.

Two other important water power sources, independent of the Central Plateau, are the South Esk River in the north and the Huon River in the south. A power station at Trevallyn, near Launceston, utilizes water from the South Esk. The Huon has a large low-level catchment in the high-rainfall area near the west coast. Storage could be provided on this river at a reasonable cost and, because of its proximity to Hobart, a future power station would have considerable value for peak load development.

3. Industrial.—Three principal industrial schemes have been installed privately. Australian Newsprint Mills Ltd. pump approximately six million gallons a day from the Derwent River at Lawitta for the Boyer Mills. Associated Pulp and Paper Mills Ltd. pump several million gallons a day from the Emu River at Burnie, and Titan Products Pty. Ltd. reticulate water from Chasm Creek to their factory at Heybridge. In addition, the State has constructed a regional water scheme to serve the Australian Aluminium Production Commission's plant at Bell Bay on the River Tamar and to supply several municipalities with bulk water for domestic and industrial purposes.

A second regional water scheme draws water from the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities. Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State which is largely unsettled. Diversion to the eastern side of the watersheds is not regarded as practicable.

4. Irrigation.—There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a scheme in the Coal Valley. Preliminary investigations have also been made in the Jordan Valley. The Water Act 1957 provides for irrigation works to be undertaken by municipalities and by Trusts constituted for the purpose, but no such works have been undertaken to date. All systems operating are privately owned, and with one exception (at Bushy Park) are single-farm units. At Bushy Park, a small system serves a group of properties. The larger proportion of the area under irrigation is watered by gravitational systems and the remainder comprises areas devoted to vegetables and served by municipal water supplies. Irrigation in Tasmania was applied in 1958–59 to 13,431 acres devoted to: hops (1,292 acres); fruit (1,737 acres); pastures (7,502 acres); green fodder, etc. (782 acres); and other crops (2,118 acres).

* See also Chapter VII.—Electric Power Generation and Distribution, p. 235.

§ 8. Northern Territory.

1. **Climate and Topography.**—Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Official Year Book No. 37 and in this issue information on climatic conditions will be found in Chapter II.—Physiography, and a brief outline of contour and physical characteristics in Chapter V.—The Territories of Australia.

2. **Administration.**—Under the Control of Waters Ordinance 1938-1959 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and diversion of water is prohibited except under prescribed conditions. There is a Water Use Branch in the Northern Territory Administration under the control of a Director. The functions of the Branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, flood prevention and control.

3. **Underground Water.**—The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry which provides the bulk of the Territory's income. The inadequacy of surface water during the dry season underlines the importance of underground water supplies in the Territory where most of the cattle population is dependent on underground supplies for three to five months each year.

Rainfall is one of the factors controlling cattle population but geological features, controlling both soils and the storage of underground water, are even more important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, this area has a comparatively low carrying capacity for cattle and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in the winter despite dry conditions.

South from this well-watered northern-most portion, the Territory becomes progressively drier, with an annual average rainfall of only five inches at the margins of the Simpson Desert in the south-east corner. In the lighter rainfall areas, the search for potable underground water becomes exacting but, in general, the regions providing the best pastures—the Ord-Victoria Region, the Barkly Tablelands and smaller areas in the Alice Springs district—provide also sub-surface conditions suitable for the storage of water. This comes about largely because, in these areas, both pasture and water are related to flat lying or gently folded limestones or volcanics of Upper Proterozoic or Cambrian age, overlying the basement of older, more tightly folded, metamorphic rocks and granites which crop out over wide areas within the Territory.

In the Ord-Victoria Region, the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Ground water is obtained in shallow bores averaging 70 to 80 feet in depth and producing small supplies which range up to 1,500 gallons an hour. For the most part, water is stored in joints, faults or cracks in the rocks although in places sub-artesian conditions pertain and, on the whole, selection of bore sites is difficult. There are also small sedimentary basins in the region, some of which yield sub-artesian, and in places, artesian water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone, sandstone and shale of the Barkly Basin. In most places, underground water is under pressure (sub-artesian) but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent. of the bores is suitable for stock and over 50 per cent. of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

Considerable research has been undertaken in the last three years into increasing the Alice Springs water supply from alluvial basins and provision of a water supply for the mining town of Tennant Creek from the Cabbage Gum Basin, a small basin in deeply weathered Precambrian rocks, 15 miles south of the town.

Similar basins to the Cabbage Gum probably occur in the Territory, south of Alice Springs. If present tests of the Cabbage Gum Basin are successful, it is possible that greater supplies of water than previously expected may be discovered in this area.

A review is being made of the information available concerning the number of bores and wells sunk in the Territory. Up to September, 1959, 1,871 bores and wells had been registered. Of these, 883 were on pastoral properties, 47 on native reserves, 13 for town water supplies and six on mining fields. The number of registered stock route bores established by the Government is 176.

4. **Irrigation.**—There are no large-scale water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for a further dam site to augment Darwin's water supply and to provide reticulated water to properties without natural waters are expected in the near future. Hydrological investigations are being carried out by the Administration and a public company to determine the supply of water and the best methods of control and use in the potential rice-growing areas of the Territory. A total of 86 gauging stations has been established in the Territory. They are of various types, namely long-term automatic, short-term automatic, staff gauge-daily readings, and staff gauge-intermittent readings, of which 24 are associated with proposed rice growing areas. The remaining gauging stations have been located to assess the river water potential of the Territory. A further 70 stations are planned for installation over the next two years. Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River and Alice Springs areas with only small acreages being utilized.

The Katherine River appears to offer irrigation potentialities on the level soil below the township. Approximately 14 properties in and around Katherine are at present drawing water from the Katherine River for irrigation purposes, vegetables and pastures being the usual crops grown. The Katherine River passes through a gorge upstream of the town under conditions which appear suitable for dam construction. The Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production. The Administration is preparing a programme of extension work into saline water conversion under Territory conditions. For further particulars, *see* page 1138 of Official Year Book No. 37.

§ 9. Papua and New Guinea.

1. **Rainfall.**—Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 231 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua).

2. **General.**—For a general description of these territories *see* Chapter V.—The Territories of Australia, page 129, of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet. However, complete data regarding water resources are not available.

The largest rivers in the Territory include the Fly (a description of which is given in Chapter XXVI. of Year Book No. 40), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles) and the Markham (110 miles).

The main water conservation interest in New Guinea at present is the hydro-electric potential which is extensive. An outline of schemes at present in operation is given in the previous chapter.

CHAPTER VIII.

WATER CONSERVATION AND IRRIGATION.

A. RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS.

§ 1. Introduction.

Official Year Book No. 37, pages 1096-1141, contained a special article "The Conservation and Use of Water in Australia" prepared by Mr. Ulrich Ellis of Canberra. In subsequent issues, much of Mr. Ellis's article of a statistical nature has been advanced, as has the general information on the more important developments in this field, but for details of general, descriptive and historical matter reference should be made to the original article. Appended to the special article, pages 1140-41, was a bibliography of selected books, reports, papers, etc., dealing with the development of the water resources of Australia and their conservation.

For further details on geographical and climatic features determining the Australian water pattern, reference should be made to Chapter II.—Physiography; on water supply and sewerage in metropolitan areas, cities and towns to Chapter XIX.—Local Government; and on the generation of hydro-electric power to Chapter VII.—Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259-265 of this Year Book and a map showing the extent of known artesian basins throughout Australia is shown on page 257.

§ 2. Water Resources and their Utilization.

1. **Surface Supplies.**—Though river gaugings have been recorded over considerable periods in some parts of Australia, records elsewhere are intermittent, of short duration, or non-existent. At present, therefore, it is impossible to estimate, with any degree of reliability, the total average annual flow of Australian streams, but it would probably amount to only a small figure in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Nile, 72; Danube, 228; Amazon, 1,780; Volga, 148; Mississippi, 474; and the ten main rivers of the United States of America in the aggregate, 900.

2. **Major Dams and Reservoirs.**—The table below lists existing major dams and reservoirs, together with those under construction and those projected as at June, 1959:—The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are, in addition, many other dams and reservoirs of smaller capacity in Australia.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA.

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS.				
Eucumbene	Eucumbene River, New South Wales	3,500,000	381	Part of Snowy Mountains Hydro- electric Scheme..
Eildon	Upper Goulburn River, Victoria	2,750,000	250	Storage for irrigation and for the generation of electricity.
Hume	Murray River near Albury	1,800,000	176	Part of Murray River Scheme— storage for domestic, stock and irrigation purposes. Being increased to 2,500,000 acre feet. Hydro-electric power also developed.
Miena	Great Lake, Tas- mania.	(a)984,500	40	Regulates water to Waddamana hydro-electric power station..
Burrinjuck	Murrumbidgee River New South Wales	837,000	264	Storage for irrigation and pro- duction of hydro-electric power
Somerset	Stanley River, Queensland	735,000	173	Brisbane-Ipswich water supply, flood mitigation and small hydro-electric power station.
Lake Victoria ..	Murray River, near South Australian border, in New South Wales	551,700	..	Natural storage for irrigation in South Australia. Storage im- proved by construction of embankments and control regulators.

(a) Useful storage only.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued.*

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS— <i>continued.</i>				
Lake Echo ..	Lake Echo, Tas- mania	(a)412,200	60	Storage for Lake Echo and Tun- gatinah hydro-electric power stations.
Waranga ..	Goulburn River, Victoria	333,400	..	Irrigation storage.
Tinaroo Falls ..	Barron River, North Queensland	330,000	133	For irrigation purposes in the Mareeba-Dimbulah area.
Wyangala ..	Lachlan River, New South Wales	303,900	190	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power.
Glenbawn ..	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conserva- tion work, for irrigation and flood mitigation.
Rocklands ..	Glenelg River, Vic- toria	272,000	..	Part of Wimmera-Mallee domes- tic and stock water supply system.
Clark ..	Derwent River, Tas- mania	(a)253,400	200	Serves Tarraleah hydro-electric power station.
Avon ..	Avon River, New South Wales	173,800	232	Part of Sydney water supply.
Glenmaggie ..	Gippsland, Victoria	154,300	100	Storage for irrigation.
Lake St. Clair ..	Central Highlands, Tasmania	(a)154,200	..	Improved natural storage for Tarraleah hydro-electric power station.
Lake Brewster ..	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan.
Cairn Curran ..	Loddon River, Vic- toria	120,600	..	Storage for irrigation.
Upper Yarra ..	Yarra River, Victoria	110,000	270	For Melbourne water supply.

DAMS AND RESERVOIRS UNDER CONSTRUCTION.

Menindee Lakes Pro- ject ..	Darling River, near Menindee, New South Wales	2,000,000	..	Part of Darling River water con- servation scheme, for irrigation and possible hydro-electric power generation.
Warragamba ..	Warragamba River, New South Wales	1,694,900	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation.
Burrendong ..	Macquarie River, near Wellington, New South Wales	1,361,000	240	For rural water supplies, flood mitigation and possible hydro- electric power generation.
Keepit ..	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity generation.
Tantangara ..	Murrumbidgee River, New South Wales	(a)193,000	148	Part of Snowy Mountains Hydro- electric Scheme.
Wellington ..	Collie River, Western Australia	150,000	112	Existing dam is being enlarged for supply of water to irri- gation districts and to agri- cultural areas and towns.
Koomboolumba ..	Tully River, North Queensland	146,000	123	For hydro-electric and possibly irrigation purposes.

DAMS AND RESERVOIRS PROJECTED.

Burdekin Falls ..	Burdekin River, North Queensland	6,584,000	150	For generation of hydro-electric power, irrigation and flood mitigation.
Blowering ..	Tumut River, New South Wales	800,000	250	Part of Snowy diversion scheme, for irrigation and hydro- electric power generation.
Jindabyne ..	Snowy River, New South Wales	560,000	210	Part of Snowy Mountains Hydro- electric Scheme.
Warkworth ..	Wollombi Brook, Hunter Valley, New South Wales	400,000	100	Flood mitigation dam for the Hunter Valley
Arthur Lakes ..	Source of Lake River near Great Lake, Tasmania	(a)339,000	50	Part of Great Lake hydro-electric power development.
Tumut 4 ..	Tumut River, New South Wales	138,000	300	Part of Snowy Mountains-Hydro- electric Scheme.
Tumut 3 ..	Tumut River, New South Wales	120,000	240	Part of Snowy Mountains Hydro- electric Scheme.

(a) Useful storage only.

3. Irrigation.—(i) *History.* For some brief remarks on the history of irrigation in Australia referring to the efforts of the Chaffey brothers and to the Victorian Irrigation Act in 1886 see issues of the Official Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Official Year Book No. 37, page 1009.

(ii) *Extent and Nature of Irrigated Culture.* About half of Australia's irrigated acreage is in Victoria, and about two-thirds is situated along the Murray and its tributaries (including the Murrumbidgee) in the three States of New South Wales, Victoria and South Australia. In those areas served by the Murray and its tributaries, irrigation water is used extensively for vines, orchards, pastures, fodders, and for domestic and stock purposes. Approximately forty per cent. of Queensland's irrigated acreage is devoted to sugar cane. Western Australia's small irrigated acreage is confined to areas in the south-west where vegetables, orchards, fodders, and pastures are served. Large scale irrigation schemes have not been developed in Tasmania or the Northern Territory although reference is made on page 282 to investigations at present being carried out in the Northern Territory to determine the availability of irrigation water for rice production.

The following table shows the area of land irrigated in each State during the years 1954-55 to 1958-59:—

AREA OF LAND IRRIGATED.

(Acres.)

Season.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55 ..	616,264	863,563	139,414	69,452	36,130	13,761	151	791	1,739,526
1955-56 ..	379,611	634,334	136,019	70,987	37,164	11,499	225	774	1,270,613
1956-57 ..	525,236	855,182	121,672	66,118	38,567	12,110	168	885	1,619,938
1957-58 ..	695,365	1,001,800	160,345	80,853	41,319	15,321 (c)	127	1,396	1,996,526
1958-59 ..	641,361	965,766	154,633	85,081	44,102	13,431 (c)	274	1,224	1,905,872

(a) Source: Water Conservation and Irrigation Commission.

(b) Source: State Rivers and

Water Supply Commission.

(c) Incomplete; excludes area of rice irrigated.

The next table shows the area of land irrigated in each State during 1958-59 according to the nature of irrigated culture:—

AREA OF LAND IRRIGATED, 1958-59.

(Acres.)

Crop.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Rice ..	47,054						(c)		47,054
Vegetables ..	15,828	18,595	26,597	10,675	8,211	1,386	95	176	81,563
Fruit ..	22,134	35,349	4,876	20,795	6,850	1,737	50	13	175,129
Vineyards ..	13,039	44,267		25,389	630				
Sugar-cane ..	(d)		65,613						65,613
Hops ..		(d)				1,292			1,292
Cotton ..			1,520						1,520
Other Crops (including Fodder and Fallow land)	116,531	39,050 (e)	45,625	6,975	3,429	1,514	114	664	213,902
Total, Crops	214,586	137,261	144,231	63,834	19,120	5,929	259	853	586,073
Pastures ..	426,775	828,505	10,402 (g)	21,247	24,982	7,502	15	371	1,319,799
Total ..	641,361	965,766	154,633	85,081	44,102	13,431	(h) 274	1,224	1,905,872

(a) Source: Water Conservation and Irrigation Commission.

(b) Source: State Rivers and

Water Supply Commission.

(c) Not available for publication.

(d) Included in Other Crops.

(e) Includes Tobacco, 7,490 acres.

(f) Includes lucerne for both hay and pasture.

(g) Includes

lucerne for pasture.

(h) Incomplete; excludes area of rice irrigated.

(iii) *Research.* Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following:—high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilization of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; and the potability of saline waters for stock.

The Commonwealth Scientific and Industrial Research Organization maintains the following research stations:—Merbein (Victoria)—horticultural problems, particularly of the dried vine fruits industry; Griffith (New South Wales)—the influence of irrigation on plant life (using horticultural trees as test plants), irrigation methods, land drainage and soil structure; Deniliquin (New South Wales)—irrigated pastures; and the Kimberley Research Station (Western Australia)—tropical crops and pastures. In the maintenance of Merbein and Griffith Stations, the Commonwealth is assisted, financially and otherwise, by the New South Wales Water Conservation and Irrigation Commission, by the Dried Fruits Export Control Board and by private organizations.

The Soils Division of the Organization has made detailed surveys of more than a million acres since 1927, with less detailed reconnaissance surveys over many millions of acres. The Division works closely with State authorities. The keynote of soil investigations is relationship between soil and land use, and there is an increasing tendency to seek such surveys before irrigation districts are established. Research is also conducted in the field of water percolation in relation to soil structure.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation Areas. It is representative of the State Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales and certain farmers' organizations (including Extension Groups). Finance is provided by these authorities on an agreed basis. The objectives are:—to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organization; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and the co-ordination of the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

4. Preservation of Catchments.—Since water conservation commences on the catchments, it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reafforestation and the preservation of catchments. In recent years, efforts to counteract soil erosion have been intensified and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

5. Sub-surface Supplies.—(i) *General.* There is no national body in Australia concerned with Commonwealth-wide research into and delineation of underground water resources. However, the Australian Academy of Science, in 1956, instituted a Standing Committee on Hydrology; as a result of discussions by this committee, the Academy, in 1958, recommended the need for such a body. The Commonwealth Government subsequently convened, in 1959, a meeting of interested Government agencies from all States to discuss the need for a permanent Commonwealth and States Conference on Underground Water and the need for the appointment of more Government hydro-geologists. The meeting acknowledged both these needs; its decisions are being considered by the respective Governments.

Although there is no national co-ordinating body, the various States and Territories do maintain Geological Surveys and Water Commissions which are continually extending the knowledge of their own States.

As a result a more or less complete general picture of the available and potential surface water resources exists, but much remains to be done with regard to the location and development of sub-surface supplies (artesian, sub-artesian and ground water), in view of their importance as the basis of settlement over large areas of Australia.

The extent of the artesian basins—particularly the Great Artesian Basin—has been determined fairly accurately while the use of sub-artesian supplies is extensive and more development is possible. The shallower ground-water supplies, however, particularly along alluvial valleys and coastal sandbed areas, have not been investigated or developed to any degree, except in a few localities.

(ii) *Artesian and Sub-artesian Supplies.* Pressure water, variable in quantity and quality, either artesian or sub-artesian, is obtainable in many parts of Australia, the various artesian basins extending over approximately one-third of the continent. A map of Australia showing the extent of the known artesian basins appears on page 257 of this Year Book.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 670,000 square miles, comprising about 430,000 in Queensland, 80,000 in New South Wales, 120,000 in South Australia and 40,000 in the Northern Territory. Of the numerous defined major and minor water-bearing basins in Australia, the following are the principal:—

PRINCIPAL WATER-BEARING BASINS: AUSTRALIA.

Name.	State.	Geological Age of Chief Aquifers.	Approximate Area.	Depth to Pressure Water.
			Square Miles.	Feet.
Great Artesian ..	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	670,000	Up to 7,000
Desert and Fitzroy Murray ..	Western Australia, Victoria, New South Wales and South Australia	Mesozoic-Palaeozoic Miocene-Oligocene ..	160,000 107,000	100 to 1,500 100 to 900
Eucla	Western Australia, South Australia	Pliocene-Miocene ..	68,000	300 to 2,000
Barkly	Northern Territory, Queensland	Cretaceous, Cambrian and Upper Precambrian	57,000	150 to 1,000
North-west ..	Western Australia	Cretaceous, Permian ..	40,000	230 to 4,000
South-west ..	Western Australia	Recent, Jurassic ..	10,000	200 to 2,500
Pirie-Torrens ..	South Australia ..	Recent, Pleistocene ..	4,000	Up to 600
East Gippsland ..	Victoria ..	Pleistocene-Oligocene	2,500	200 to 1,800
Adelaide ..	South Australia ..	Recent, Oligocene ..	1,100	10 to 850
Basins of Ord-Victoria Region	Northern Territory, Western Australia	Mainly Cambrian and Permian	Unknown	Unknown

More than 3,000 artesian bores have been constructed within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated to exceed 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but it is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In some districts, a considerable amount of irrigation is carried out from shallow ground-water supplies.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, many will not cease, but will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by sandstone outcrops. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or "bore drains" and the careless use of water. (For greater detail on this subject see Official Year Book No. 37, pp. 1103-4.)

(iii) *Ground Water.* Ground water supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes. Two of the most important of these supplies are in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle and at Botany, Sydney, private industry pumps 5 million gallons a day for its own use from similar sands.

Recent exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day.

§ 3. National and Interstate Aspects.

1. *General.*—As the Commonwealth Constitution makes special reference to water problems, both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources resides in the individual State governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following sections.

In the Report on Irrigation, Water Conservation and Land Drainage presented to the Commonwealth Government by the Rural Reconstruction Commission in 1945, national aspects of water conservation and use were emphasized. The report recommended that, to obviate lack of co-ordination, an all-Australian plan having the assent of the various governments be adopted, and that the Commonwealth should endeavour to promote interstate co-operation and co-ordinated development generally.

In 1946, a conference between the Commonwealth and States agreed to revive the Irrigation Production Advisory Committee first established under the authority of the Australian Agricultural Council in 1938. Its functions are:—(a) to prepare for the consideration of the Australian Agricultural Council or any Committee of Ministers appointed by the Council, conclusions formed from investigations to be carried out by Commonwealth and State Officers into the various agricultural industries which it is possible to develop on irrigated lands; (b) to undertake long-term co-ordination of land utilization in irrigable areas served by the River Murray and its tributaries, involving co-ordination of all available lands and the carrying out of such supplementary investigations as may prove necessary.

2. *Murray River Scheme.*—(i) *General.* The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 414,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Murrumbidgee (980 miles), the Darling (1,700 miles), and the Goulburn (280 miles). The average annual flow of each of the chief contributory streams is as follows:—Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,506,000 acre feet; Murrumbidgee River, 2,280,000 acre feet; Goulburn River (including Broken River), 2,502,000 acre feet; Darling River, 2,224,000 acre feet; and Ovens River, 1,169,000 acre feet. Irrigated production in the River Murray basin is mainly in the form of grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, fat lambs, poultry, eggs and pigs.

For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, see issues of the Year Book prior to No. 39. The Agreement provided for the construction of works, the allocation of the water between the three States, and the appointment of a Commission to implement the Agreement. The Commission comprises four Commissioners, representing the Commonwealth and the three States respectively. The Commonwealth representative presides.

(ii) *River Murray Waters Agreement.* Under the Agreement, construction works are carried out by the States (who are also responsible for maintenance) subject to the approval and direction of the Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to fill Lake Victoria storage once, and with the aid of water returned from Lake Victoria, to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. These flows are to meet domestic and stock requirements in South Australia, losses of water in lockages and evaporation losses other than in the lakes at the Murray mouth, together with 603,000 acre feet per annum for diversion from the Murray for irrigation in South Australia. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949, see Official Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in July, 1949, to consider the diversion of the Snowy River, it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (see para. 4, Snowy Mountains Hydro-electric Scheme, p. 248) and that a storage of not less

than 1,500,000 acre feet should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and found that an increase in capacity of 500,000 acre feet in storage on the Upper Murray River above Albury was the maximum that was economically justifiable for the regulation for irrigation purposes of the waters of the Upper Murray River and of waters added from the Snowy River. The Commission agreed that this increase could best be provided by increasing the size of the Hume Reservoir from its previously designed capacity of 2,000,000 acre feet to 2,500,000 acre feet, but if additional storages for hydro-electric purposes become justified in the future further increases would best be provided at some other site. It subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for this enlargement of the Hume Reservoir to 2,500,000 acre feet. A conference of Ministers considered the recommendation in July, 1954, and agreed to the enlargement. In addition, it was agreed that the Commission should be given power to construct regulators and to carry out such other work on the River Murray between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7th April, 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the River Murray, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following Ministerial conferences, amendments were ratified by the four Parliaments concerned and came into force on 6th November, 1958.

The estimated quantity (in acre feet) of water diverted during 1958-59 from the Murray and its tributaries for irrigation and other purposes under the River Murray Agreement was as follows:—New South Wales, 2,155,000; Victoria, 2,576,000; South Australia, 260,000; a total of 4,991,000 acre feet.

(iii) *River Murray Works.* One of the major works of the Murray River Scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, 10 miles above Albury, forming a lake of 33,000 acres. The design comprises a mass concrete spillway and outlet works extending 1,000 feet and an earthen embankment 110 feet high extending for 4,000 feet across the river flats. The length of the total structure is approximately one mile. Work is nearly completed on the enlargement of the reservoir to its approved capacity of 2,500,000 acre feet. The fixed spillway was completed to its final level in May, 1957, and installation of flood gates to raise the level a further 24 feet was completed in September, 1958. The anchoring of the concrete section of the dam to the underlying rock by prestressed cables was still in progress in September, 1959. On completion of this work, the storage may be raised to its approved capacity. In the meantime, the storage can be progressively increased as work proceeds.

The Yarrawonga Diversion Weir was completed in 1939 to raise the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan Junction and the other below the Lachlan Junction.

The Mulwala Canal, served by the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, and will serve 1,500,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, and is designed to serve 270,000 acres. Only a portion of each area will be irrigated.

Adjoining the river in New South Wales and 35 miles from the Murray-Darling Junction, Lake Victoria storage, with a capacity of 551,700 acre feet and a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. Work has recently been completed on the enlargement of the inlet channel to Lake Victoria to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The total capacities of such main storages are: New South Wales—Burrinjuck (Murrumbidgee), 837,000 acre feet; Wyangala (Lachlan), 303,900 acre feet; Victoria—Eildon (Goulburn), 2,750,000 acre feet; Waranga (Goulburn), 333,400 acre feet. More details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia.

3. New South Wales-Queensland Border Rivers Agreement.—The New South Wales-Queensland Border Rivers Agreement came into effect on 1st July, 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland, for the furtherance of water conservation; water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Commission to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir in the Macintyre River at Goondiwindi and the existing weir in the Barwon River at Mungindi. The costs of these works and of administration are to be borne by the States in equal shares. The agreement further provides that the water discharged from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

The Water Conservation and Irrigation Commission of New South Wales, which is the constructing authority for the dam, carried out investigations of several dam sites on the Dumaresq River near Mingoola Station homestead, which is approximately 39 miles from Tenterfield. Foundation drilling supplemented by a geophysical survey carried out by the Commonwealth Bureau of Mineral Resources disclosed unfavourable foundation conditions at all sites, the depth of alluvium overlying sound rock exceeding 150 feet in all cases. In an endeavour to obtain more economical storages, investigations were extended to tributary streams and superficially suitable sites have been located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Exploratory drilling of the tributary sites is now in progress.

The Irrigation and Water Supply Commission of Queensland is the constructing authority for the new weirs and regulators. The construction of Bonshaw and Cunningham Weirs on the Dumaresq River was completed in January, 1953, and June, 1954, respectively.

A weir and regulator is at present under construction on the Barwon River at the offtake of the Boomi River. The construction of a low level weir to establish a pumping pool at Glenarbon on the Dumaresq River was complete at 30th June, 1959, except for the installation of a fish ladder. The existing Goondiwindi and Mungindi Weirs are being maintained; operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed, it is unlikely that any weirs, other than those referred to above, will be required.

The catchments for the border streams (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland) and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that it is necessary to supplement rainfall from April to October by irrigation to stabilize and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

4. Snowy Mountains Hydro-electric Scheme.*—Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in

* See also Chapter VII.—Electric Power Generation and Distribution, p. 216. For more detailed information see special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX—Miscellaneous, of Official Year Book No. 42.

1947 and 1948, and the submission by the committee of reports in 1948 and 1949, the Commonwealth Parliament in July, 1949, passed the Snowy Mountains Hydro-electric Power Act setting up an Authority to implement the proposals agreed upon.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The Scheme involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams and this makes more water available for irrigation. Details of the two transmountain diversions and the associated power works together with details of progress and construction are given in Chapter VII.—Electric Power Generation and Distribution.

Commencing in the 1960–61 irrigation season, the Scheme will make available an additional 170,000 acre feet of water each year for irrigation in the Murrumbidgee Valley. During 1963, this will increase to 500,000 acre feet per annum. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land which should result in additional annual primary production to the value of some £30 million per annum.

B. STATES AND TERRITORIES.

§ 1. Australian Local Pattern of Water Conservation and Use.

The foregoing sections deal with water conservation and irrigation in Australia generally and with national and interstate projects. The following survey indicates the local pattern of water resources and the steps taken by the State Governments to bring about their development. It will be seen that water policies in the various States tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales, major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production.

Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest appertains almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

§ 2. New South Wales.

1. *General.*—(i) *Rainfall and History.* In issue No. 37 of the Year Book (p. 1110), information is given on the pattern of rainfall and the history of irrigation in New South Wales. (See also Chapter II.—Physiography, p. 45, of this issue.)

(ii) *Administration.* The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood

control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales—Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see page 248 of this chapter.

2. Schemes Summarized.—(i) *Location and Type.* The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam and Lake Brewster on the Lachlan, a tributary of the Murrumbidgee, and by Glenbawn Dam on the Hunter River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc., in many places, and head storages have been commenced on the Macquarie and Namoi Rivers whilst Menindee Lakes storage, to conserve the waters of the Darling River, is being constructed. Substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts and river improvement districts. There are seven irrigation areas:—The Murrumbidgee Irrigation Areas consisting of 451,251 acres served with water through a channel system stemming from the river at Berembed Weir; the Coomealla Irrigation Area of 34,672 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,549 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,806 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres supplied from the Edward River by diversion at Stevens Weir; and the recently established Buronga (8,693 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas served by pumping from the Murray. All these areas are administered by the Commission and details of the various schemes are given in sub-section (iii) below.

(ii) *Works.* The capacities of the main storages (in acre feet) are:—

Murray:—Half share of Hume Reservoir, weirs and locks to Wentworth (1,011,420); Stevens Weir, Edward River (7,165).

Murrumbidgee:—Burrinjuck Dam (837,000); Berembed Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740).

Lachlan:—Wyangala Dam (303,900); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200).

Hunter:—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

Water from the Hume Reservoir is used for domestic and stock purposes, to provide bulk supplies for country towns, for the irrigation of vines, fruits and fodder in the Curlwaa and Coomealla Areas, for rice and other cereals and for pastures in the Tullakool Irrigation Area, for domestic and stock supply and irrigation in the Berriquin, Wakool and Denimein Districts, and for water trusts for domestic and stock purposes and/or irrigation.

The Wyangala Dam is 30 miles upstream from Cowra in the Central West. It has a catchment of 3,200 square miles. Water from the dam, supplemented by the unregulated flow of the Belubula River, provides for domestic and stock purposes along the full length of the river (over 700 miles) and also for irrigation by land holders operating licensed pumps. The towns of Cowra, Forbes, Condobolin, Hillston and Booligal are supplied. Balance storages at Lake Cargelligo and at Lake Brewster conserve water during periods of high flow for release as required. Water from the Lachlan, diverted at Jemalong Weir, supplies the districts of Jemalong and Wylde's Plains, serving an area of 224,556 acres. Proposals for future development include provision of a head storage on the Belubula River.

The approximate total length of channels (including main canals) constructed by the Water Conservation and Irrigation Commission in New South Wales is 3,247 miles. The approximate length of drains and escape channels is 1,000 miles, and the total length of pipe lines is approximately 68 miles, making a grand total of 4,315 miles of channels and pipe lines, etc.

(iii) *Extent of Systems and Nature of Irrigated Culture.* The following table shows the areas of the various irrigation systems and particulars of the areas under irrigated culture in New South Wales during 1958-59:—

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES, 1958-59.

(Acres.)

System, etc.	Total Area.	Area Irrigated.										Total.
		Rice.	Other Cereals Grown for Grain.	Lucerne. (a)	Other Fodder Crops.	Pastures.		Vineyards.	Orchards. (c)	Vegetables.	Fallow Land and Miscellaneous.	
						Sown. (b)	Natural.					
Irrigation Areas—												
Murrumbidgee (within the Areas) ..	451,251	28,021	8,309	3,008	2,733	66,649	2,407	5,191	14,624	3,842	18,610	153,394
Lands adjacent supplied under agreement ..	(d)	..	..	89	7	186	1,560	2	73	4	..	1,921
Coomealla ..	34,672	..	..	6	..	..	..	4,292	944	..	..	5,242
Curlwaa ..	10,549	..	..	..	40	..	..	479	1,055	..	..	1,574
Hay ..	6,806	..	..	58	186	1,591	77	..	..	..	..	1,912
Tullakool ..	18,006	1,021	130	60	10	6,580	..	..	..	..	335	8,136
Total ..	521,284	29,042	8,439	3,221	2,976	75,006	4,044	9,954	16,696	3,846	18,945	172,179
Irrigation Districts—												
Benerambah ..	112,818	5,345	5,012	1,107	705	16,580	..	..	..	..	3,940	32,689
Tabbitta ..	10,745	297	..	50	267	1,610	400	..	..	..	20	2,644
Wah Wah ..	575,224	..	1,360	1,440	1,390	8,250	..	..	..	..	1,750	14,190
Berriquin ..	781,152	..	6,400	13,768	1,750	201,792	2,250	..	..	10	2,270	228,240
Wakool ..	494,708	6,364	1,750	1,519	1,242	55,596	630	..	..	20	810	67,931
Denimein ..	147,005	2,486	1,185	1,380	90	10,650	200	..	12	..	760	16,763
Jemalong and Wylde's Plains ..	224,556	..	90	6,832	..	3,025	..	..	..	..	393	10,340
Gumly ..	353	..	39	76	8	37	..	..	19	45	..	224
Deniboota ..	307,212	3,520	630	1,139	505	16,392	160	..	..	..	1,195	23,541
Total ..	2,653,773	18,012	16,466	27,311	5,957	313,932	3,640	..	31	75	11,138	396,562
Flood Control Districts—												
Lowbidgee ..	375,000	..	..	..	..	..	(f)94,118	..	..	..	..	(f)94,118
Medgun ..	272,800	..	..	..	..	..	(f)61,760	..	..	..	..	(f)61,760
Total ..	647,800	..	..	..	..	..	f155,878	..	..	..	..	f155,878
Irrigation Trusts—												
Pomona ..	1,580	..	..	..	..	..	..	770	130	..	..	900
Bringan ..	4,933	..	..	..	..	..	..	..	..	..	..	(d)
Bungunyah-Koraleigh ..	1,810	..	..	..	..	..	..	990	72	80	..	1,142
Glenview ..	661	..	..	..	..	..	..	..	..	..	..	(d)
Goodnight ..	1,167	..	..	..	..	..	..	548	41	2	10	601
Bama ..	3,446	..	..	..	..	..	..	..	..	..	..	(d)
Blairmore ..	315	..	..	..	..	..	..	..	..	..	..	(d)
Total(e) ..	13,912	..	..	..	..	..	..	2,308	243	82	10	2,643
Water Trusts—Domestic and stock supplies ..	2,909,456	..	..	..	..	..	..	..	..	..	..	..
Licensed Diversions(g)—												
To irrigate ..	(d)	..	..	16,145	5,338	25,668	4,485	767	5,164	11,285	(h) 585	69,977
Grand Total(e) ..	(d)	47,054	24,905	46,677	14,271	414,606	168,047	13,039	22,134	15,828	30,678	797,239

(a) Includes grazing and cutting.

(b) Perennial and annual self-seeding. Perennial amounted to 53,042 acres.

(c) Citrus and deciduous. Deciduous amounted to 9,277 acres of which 7,795 acres were in the Murrumbidgee Irrigation Area.

(d) Not available. (e) Incomplete. (f) Area irrigable; details of area actually irrigated are not available.

(g) Excludes domestic and stock supplies for which particulars are not available. (h) Tobacco.

(i) Includes Flood Control Districts; but excludes some Irrigation Trusts for which information is not available.

3. Murrumbidgee. Irrigation. Areas.—(i) Description. These areas together with adjacent lands supplied under agreement, received 288,412 acre feet, or about a quarter, of the total water (1,183,989 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam (capacity 837,000 acre feet), on the Murrumbidgee, 40 miles north-west of Canberra. The catchment above the dam is 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbatta, Benerembah and Wah Wah and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter and spring freshets, fed by melting snows, and is released during the September-May irrigation season. It passes along the river channel to Berembred Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 96½ miles from the off-take. Reticulation channels aggregate approximately 879 miles and drainage channels 802 miles. In addition, approximately 446 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission, but land transactions are not under its control.

The land on which the Murrumbidgee Irrigation Areas are situated originally comprised large sheep stations and was sparsely populated. Population was 12,000 in 1923, 15,000 in 1929, 20,000 at the 1947 Census and 24,000 at the 1954 Census. At the 1954 Census, the population of the Yanco District (with Leeton as the centre) was 10,000 and the population of the Mirrool Area (with Griffith as the centre) was 14,000. At 30th June, 1958, the population of Leeton Shire was estimated at 10,400, and that of Wade Shire at 15,450.

(ii) *Administration.* The Water Conservation and Irrigation Commission control land transactions and water supplies for the Murrumbidgee Irrigation Areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission under freehold or perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30th June, 1959, was 32,970 acres, including 39,171 held for short lease grazing, agriculture, etc.

(iii) *Production.* Since the inauguration of the scheme in 1912, the volume of production from the area has greatly increased. Numbers of new crops are grown while the volume of the major products of the area prior to the scheme, such as wool and livestock for slaughtering, has expanded considerably. The principal products to-day are: wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans and root vegetables.

Rice growing was initiated on the Murrumbidgee Irrigation Areas in 1924 and has since become the most important crop grown in the area. In 1958–59, the total area sown was 28,021 acres and the total quantity of water delivered for the rice crops was 146,697 acre feet. In a normal season, the water supplied for rice represents about one-half of the total delivered to the Murrumbidgee Irrigation Areas.

Co-operation is a prominent feature in the Murrumbidgee Areas. Co-operative organizations in the Mirrool section handle about 300,000 bushels of fruit a year (compared with 54,600 in 1927–28). The annual sales turnover of the Leeton cannery in recent years has exceeded £2,000,000. Settlers and government agencies co-operate extensively in all matters relating to irrigation practice.

4. Other Irrigation Areas.—The Curlwaa, Coomealla, Hay, Buronga, Mallee Cliffs and Tullakool Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which also is responsible for the operation and maintenance of works to supply water.

Curlwaa Area, on the Murray near Wentworth, consists of 10,549 acres of which 7,815 acres were occupied at 30th June, 1959. Production consists of dried vine fruits, deciduous fruits and fodder crops.

Coomealla Area, 9 miles upstream from Curlwaa, comprises 34,672 acres of which 31,013 acres were occupied at 30th June, 1959. Production consists of vine and citrus fruits. An extension of the Coomealla Irrigation Area was completed in recent years to provide irrigation farms for ex-servicemen and 100 ex-servicemen were placed on the new farms.

Tullakool Area, formerly part of the Wakool Irrigation District, comprises 18,006 acres of which 14,311 acres are occupied. Main products are fat lambs, wheat and rice.

Hay Area, on the lower Murrumbidgee, consists of 6,806 acres, of which 6,241 acres are occupied. Production comprises dairy products, fat lambs, sheep, wool and fodders.

Buronga Area, a new area on the Murray River, upstream from Wentworth, consists of 8,693 acres, of which 1,151 acres are occupied. Production will be mainly fruit, vegetables and dairy products. Mallee Cliffs is also a new area upstream from Wentworth, its area being 1,900 acres, of which 1,332 acres are occupied.

5. **Irrigation Districts.**—These Districts are set up under the Water Act for (a) domestic and stock water supply and (b) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders. The following are the districts or provisional districts constituted and the areas of land benefited:—*Murray River*—Wakool District (completed) 494,708 acres, Berriquin Provisional District 781,152 acres, Denibootea Provisional District 307,212 acres, Denimein Provisional District 147,005 acres, Jernargo Provisional District (certain portions of which have been included in Berriquin District) 4,325 acres, Barramein Provisional District (domestic and stock supply only—works not yet commenced) 89,080 acres; *Murrumbidgee River* (completed)—Benerembah District 112,818 acres, Tabbita District 10,745 acres, Wah Wah District 575,224 acres, Gumly Provisional District 353 acres; *Lachlan River* (completed)—Jemalong and Wylde's Plains Districts 224,556 acres.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on "extensive" irrigation—that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. "Water right" means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Denibootea and Denimein Districts is diverted through a main canal which will be 100 miles long when completed. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30th June, 1959, the total length of completed canals and channels in Berriquin District was 970 miles, including Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 767 miles, escape channels 96 miles and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day.

Wakool, with 384 miles of channel, contains 308 holdings and the area developed by irrigation comprises about one acre in eight of the total area. The total area irrigated in 1958–59 was 67,931 acres and water supplied was 110,314 acre feet. Crops comprised fodders, pastures, rice, cereals and vegetables, but sheep raising is the main industry.

Considerable subdivision has occurred within the Berriquin District and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Total irrigated acreage was 228,240 at 30th June, 1959. Sheep and wheat growing are the main industries. The fat lamb industry is well developed and expanding. Dairying is making headway, and a butter factory has been established at Finley.

In the Benerembah, Tabbita and Wah Wah Districts, supplied from the channels of the Murrumbidgee Irrigation Areas, the quantity of water supplied during the 1958–59 season for irrigation, etc., was 95,864 acre feet, and the area irrigated was 49,523 acres, including rice and other cereals, pastures, and fodder crops.

For the same season, 8,468 acre feet of water were supplied from the Lachlan River to irrigate a total area of 10,340 acres within the Jemalong and Wylde's Plains Districts.

6. **Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts.**—The Water Act provides for the constitution of Trust Districts for domestic and stock water and irrigation and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following water trusts—other than irrigation—have been constituted (the area in acres of each district

is shown in parentheses)—*Murray River*—Tuppall Creek (78,080), Bullatale Creek (68,320), Little Merran Creek (157,440), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,001,210); *Lachlan River*—Torrigan, Muggabah and Merrimajeele Creeks (170,240) Condobolin West Weir (4,480), Marrowie Creek (292,640), Ulonga (64,960), Micabil Weir (11,500); *Miscellaneous*—Algudgerie Creek (9,760), Nidgerie Weir (46,880), Great Ana Branch of Darling River (967,339), Collarenebri town water supply (117)—making in all a total area of 2,909,456 acres. Thirteen of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. The following are the Trust Districts (area in acres is shown in parentheses):—*Murray River*—Bama (3,446), Goodnight (1,167), Bungunyah—Koraleigh (1,810), Glenview (661), Brangan (4,933); *Darling River*—Pomona (1,580); *Hunter River*—Blairmore (315)—making in all a total area of 13,912 acres.

The Lowbidgee Provisional Flood Control and Irrigation District (375,000 acres), the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. There are 50 holdings. Another district, Medgun (272,800 acres) near Moree in the North-West is also in operation. There are 20 holdings in the district and the area benefited by controlled floodings is 61,760 acres.

7. River and Lake, and Farm Water Supplies.—During recent years, the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in dry months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

The Farm Water Supplies Act was passed in 1946. Technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams.

8. Underground Water.—Extensive use is made of artesian, sub-artesian, and shallow underground water. Eighty thousand square miles in the northern and western portions are covered by the Great Artesian Basin. Eighty-one Bore Water Trusts and 12 Artesian Wells Districts have been constituted. The Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts settlers maintain the drains. Bore Trusts and Artesian Districts cover about 5 million acres and water is distributed through approximately 7,400 miles of open earth drains. The number of artesian bores giving a flowing or pumping supply at 30th June, 1959, was 1,071 and the estimated total daily flow from 600 flowing bores was 61 million gallons. The estimated flow in 1914–15 was 99 million gallons a day for 372 bores. The deepest bore is Boronga No. 2 (4,570 feet), which also has the greatest flow, namely, 1,010,200 gallons a day. Of the total number of bores sunk, 246 have been installed by the Government in connexion with public watering places, Bore Water Trusts or Artesian Wells Districts.

Of other structural basins of sedimentary rocks, e.g. Murray, Cumberland, Oxley and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock and, in some instances, small scale irrigation, are obtained from porous sandstones in the Moss Vale-Picton area of the south-western lobe of the Cumberland Basin but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin but the centre of this basin lies under the Liverpool Range. The Clarence Basin is relatively unimportant from a groundwater viewpoint.

In other parts of the State, the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 50,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation purposes. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan Valley. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter.

Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney water supply, the Botany sands are now utilized mainly by industry. The Tomago sands provide a considerable proportion of Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain they yield useful stock supplies, mostly at depths between 50 and 250 feet.

It is necessary under the 1955 amendments to the Water Act that all wells and bores be licensed and details of over 13,000 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

Since 1912, the Government has assisted settlers in shallow boring operations for which repayments are required over a period. To 30th June, 1959, the number sunk by the Commission's plants was 4,961 and their average depth was 308 feet.

9. Future Programme.—The programme of post-war development already in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Construction of Burrendong Dam on the Macquarie River is in progress and Keepit Dam on the Namoi River is nearing completion. Legislation has been passed authorizing the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley and a storage dam at Blowering on the Tumut River. The Menindee Lakes storage project, part of the scheme for conserving the waters of the Darling River, is in course of construction. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At 30th June, 1959, work was completed on construction of a diversion weir at Gogeldrie on the Murrumbidgee River from which water will be supplied to a new irrigation area (Coleambally) on the south side of the river comprising not less than 1,000 new irrigation farms. At Wyangala Dam, on the Lachlan River, work has commenced on the temporary lowering of the fixed crest of the dam spillway to enlarge the spillway for passage of greater floods. Investigations are being made concurrently to determine whether the dam can be increased in height to provide a greater storage. Later development will extend to a new area on the north side of the river.

10. Hydro-electricity.—A survey of the use of water for power generation in New South Wales may be found in the previous chapter (*see* p. 222).

§ 3. Victoria.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Victoria were given on page 1117 of Official Year Book No. 37. (*See also* Chapter II.—Physiography, p. 45, of this Year Book.)

(ii) *Administration.* The passing of the Irrigation Act of 1886 put the control of surface waters under the Crown, provided for the establishment of Irrigation Trusts and marked the beginning of irrigation development. In 1905, the Water Act established the State Rivers and Water Supply Commission and gave it control of all irrigation, rural domestic and stock supplies, town water supplies, and flood protection and drainage undertakings outside the Metropolitan area, with the exception of the irrigation area operated by the First Mildura Irrigation Trust and the town water supplies operated by locally constituted waterworks trusts or local governing bodies.

The operations of the First Mildura Irrigation Trust, the waterworks trusts and local governing bodies administering town water supplies, the river improvement and drainage trusts and the various sewerage authorities which control sewerage undertakings in country towns, are also subject to general supervision by the Commission.

2. Works Summarized.—Since 1902, when a great drought emphasized the need for a concerted attack on water problems, the total capacity of water storages including Victoria's half share of River Murray storages has increased from 172,000 to 5,246,850 acre feet at 30th June, 1959. Most of the water from these storages is used for irrigation.

The area actually irrigated has risen from 105,000 acres in 1906 to 965,766 acres in 1958–59 to which 1,220,971 acre feet of water were delivered. The Commission estimated the value of irrigated production in 1957–58 at £53,000,000 representing about one-sixth of the value of Victoria's total rural production.

Town water supply and sewerage works have expanded to the stage where two-thirds of the population outside the metropolitan area is served by a reticulated water supply and one-third is served by a sewerage system. Land drainage, flood protection and river improvement have also been advanced.

A domestic and stock water supply is given to various rural areas throughout the State but principally to the Wimmera and Mallee about which a detailed description is provided later in this chapter.

Besides supplying water to its own irrigation districts, the Commission also supervises the diversion of water by private persons by means of licences and permits. In the last ten years, the area so licensed has increased by 50 per cent. and private diverters now provide an eighth of the irrigation production.

Another notable development in the post-war years has been Soldiers' Settlement Schemes based on irrigation. Altogether, nearly one thousand holdings have been prepared for settlers, including more than 500 in the Murray Valley District, 250 at Robinvale and 125 in Gippsland.

3. **Storages.**—The capacities of the main storages in the various systems (in acre feet) at 30th June, 1959, were as follows:—

Goulburn System:—Eildon Reservoir, 2,750,000; Waranga Reservoir, 333,400; Total, 3,104,100; *Murray-Loddon System*:—Half share of River Murray storages, 1,011,420; Cairn Curran, 120,600; Tullaroop, 60,000; Total, 1,340,230; *Wimmera-Mallee*:—Rocklands, 272,000; Total, 538,900; *Gippsland*:—Glenmaggie, 154,300; Total, 154,340; *Coliban*:—62,730; *Werribee-Bacchus Marsh*:—34,900; *Mornington Peninsula*:—5,800; *Orway*:—1,080; *Miscellaneous*:—4,770; *Grand Total*:—5,246,850.

4. **Extent of Systems and Nature of Irrigated Culture.** The following table shows the areas of the various irrigation systems and the areas under irrigated culture during 1958–59.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: VICTORIA, 1958–59.

(Acres.)

System.	Total Area.	Area Irrigated.									Total.
		Cereals.	Lucerne. (a)	Other Fodder Crops.	Pastures.		Vineyards.	Orchards.	Market Gardens.	Fallow and Miscellaneous.	
					Sown.	Natural.					
Goulburn	1,256,955	4,508	12,330	4,801	336,819	21,547	197	18,356	2,118	6,081	406,757
Murray—											
Torrumbarry Weir ..	377,544	2,651	3,811	3,346	156,272	30,437	4,860	1,086	1,400	2,936	206,799
Yarrawonga Weir ..	267,812	68	10,307	648	81,080	4,455	32	4,375	374	20	101,359
By Pumping ..	35,727	50	277	14	569	527	23,997	1,682	262	371	27,749
Total	681,083	2,769	14,395	4,008	237,921	35,419	28,889	7,143	2,036	3,327	335,907
Loddon and other North-											
ern Systems ..	(b) 19,735	936	2,342	983	24,500	3,341	..	3,585	361	1,929	37,977
Southern Systems ..	146,693	412	1,797	912	54,878	2,812	..	578	6,313	2,135	69,837
Mildura and Private											
Diversions ..	(c) 45,000	811	7,888	4,524	62,833	9,683	15,181	5,687	7,767	914	115,288
Grand Total ..	2,149,466	9,436	38,752	15,228	716,951	72,802	44,267	35,349	18,595	14,386	965,766

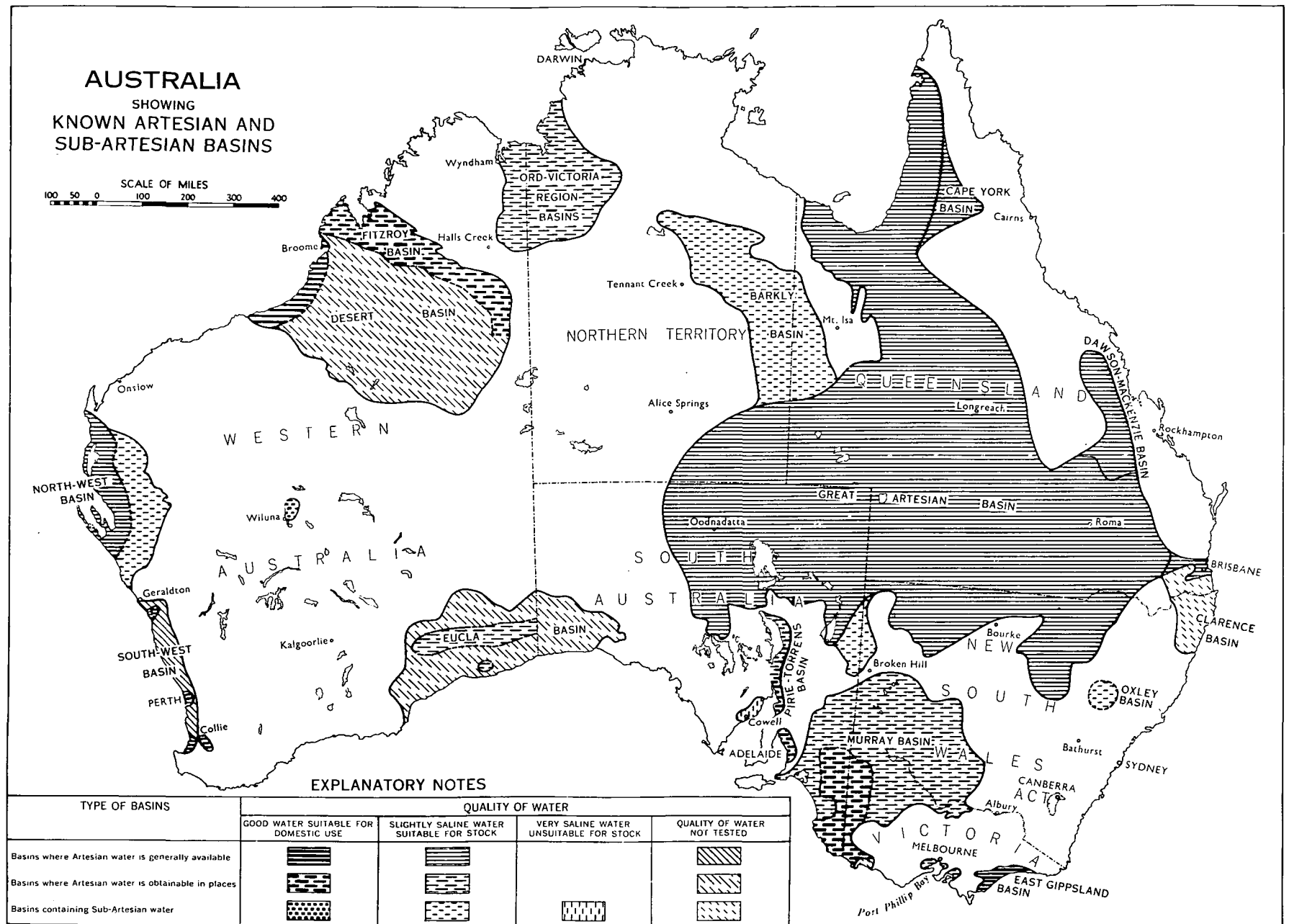
(a) Includes lucerne for both hay and pasture. Mildura Irrigation Trust only.

(b) Area of Campaspe District only.

(c) Area of First

AUSTRALIA SHOWING KNOWN ARTESIAN AND SUB-ARTESIAN BASINS

SCALE OF MILES
100 50 0 100 200 300 400

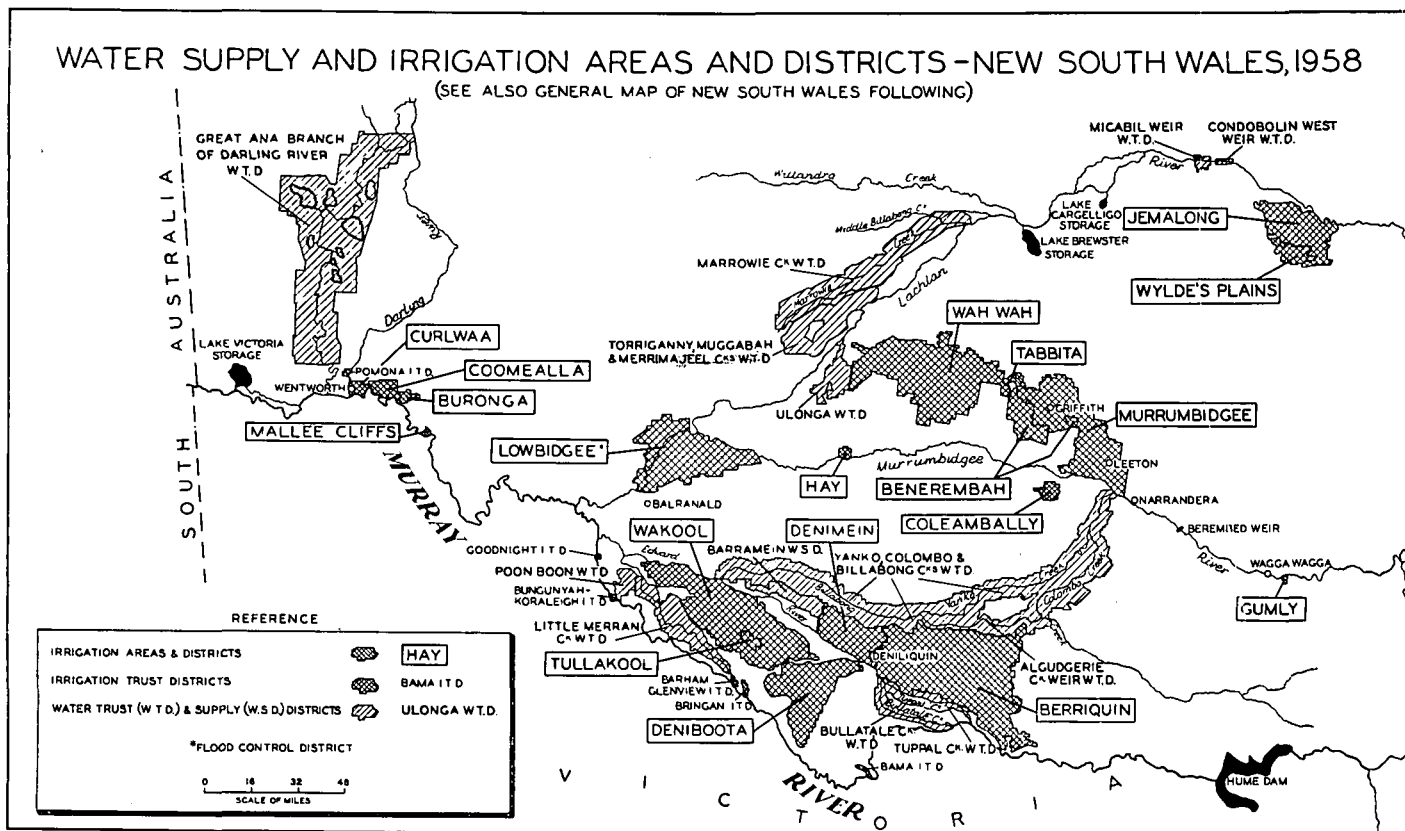


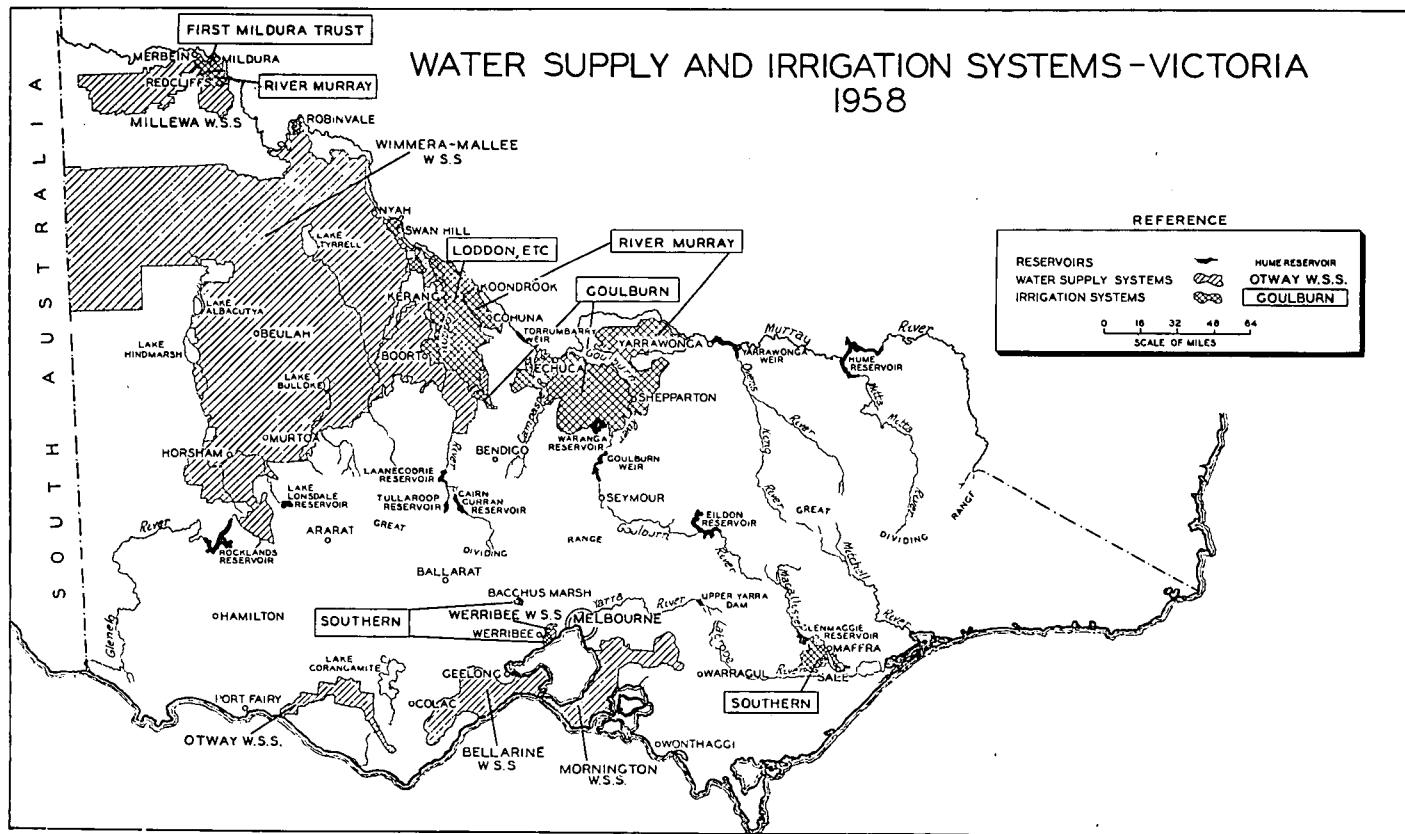
EXPLANATORY NOTES

TYPE OF BASINS	QUALITY OF WATER			
	GOOD WATER SUITABLE FOR DOMESTIC USE	SLIGHTLY SALINE WATER SUITABLE FOR STOCK	VERY SALINE WATER UNSUITABLE FOR STOCK	QUALITY OF WATER NOT TESTED
Basins where Artesian water is generally available				
Basins where Artesian water is obtainable in places				
Basins containing Sub-Artesian water				

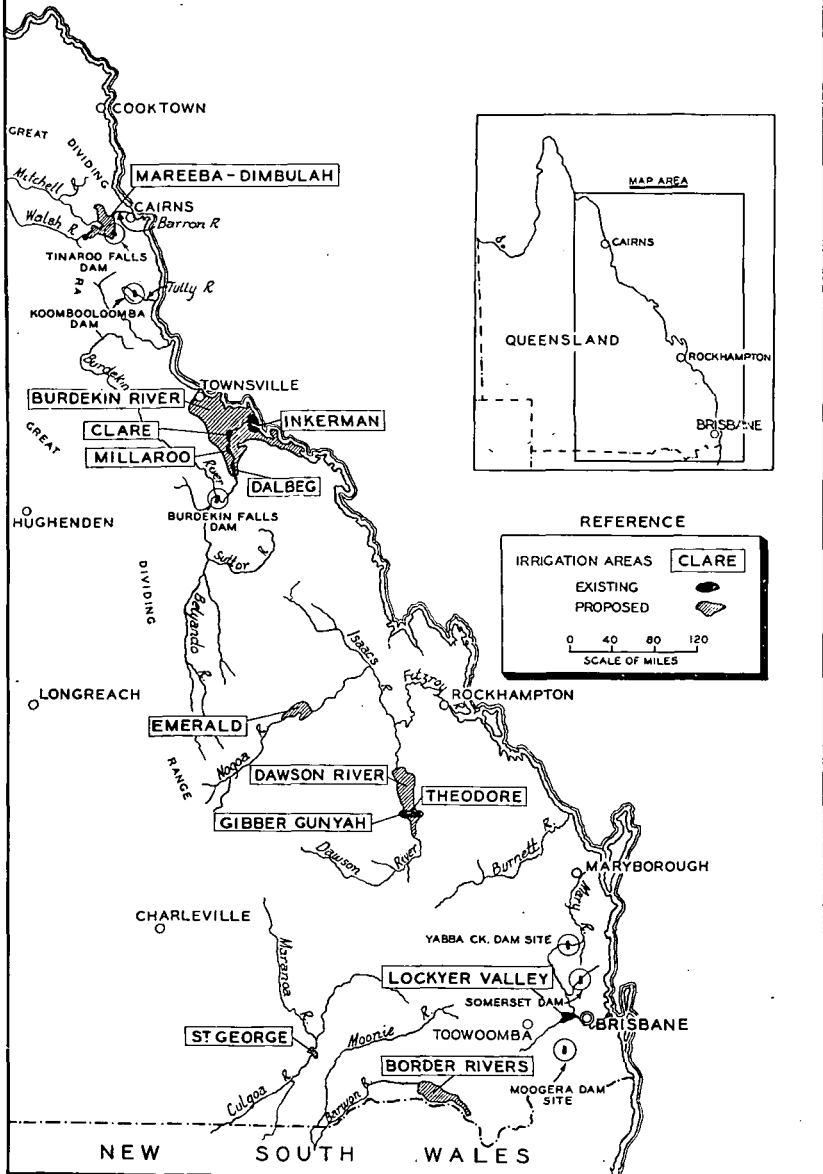
WATER SUPPLY AND IRRIGATION AREAS AND DISTRICTS-NEW SOUTH WALES,1958

(SEE ALSO GENERAL MAP OF NEW SOUTH WALES FOLLOWING)

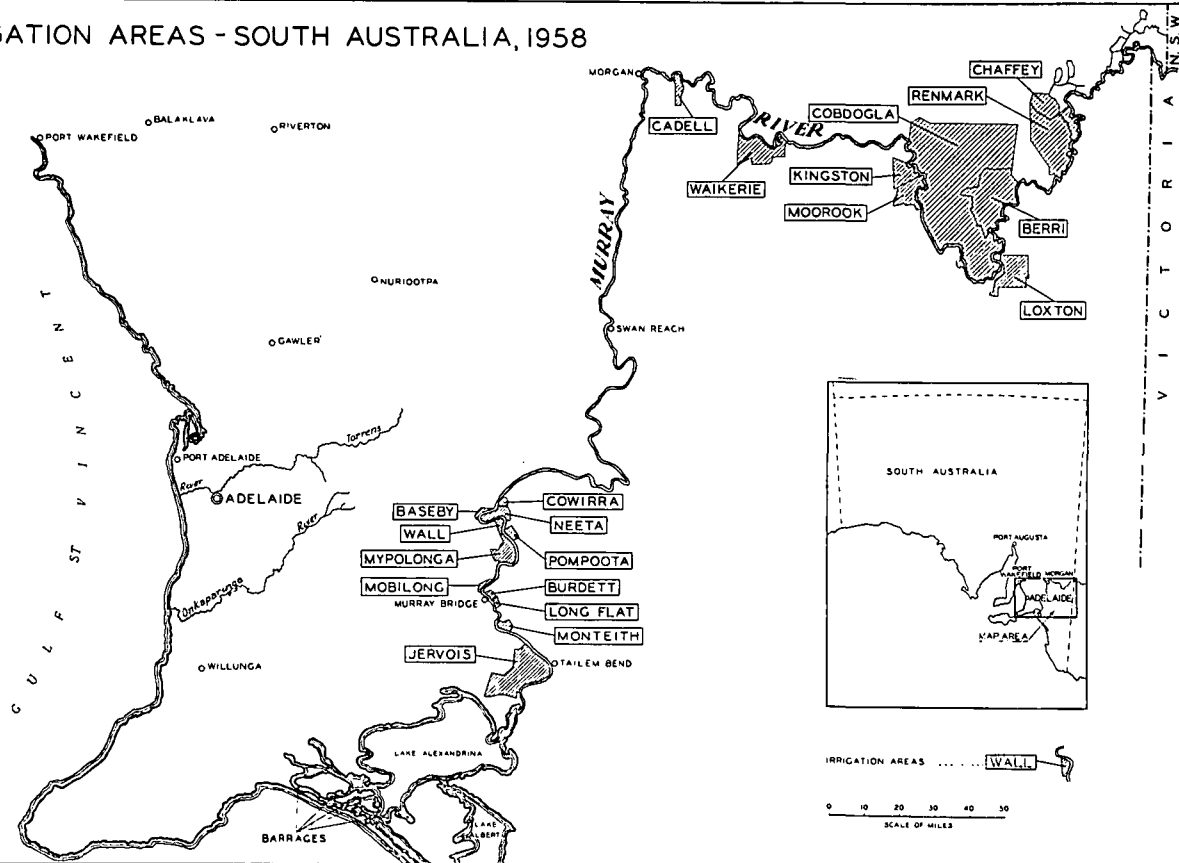




IRRIGATION AREAS-QUEENSLAND 1958

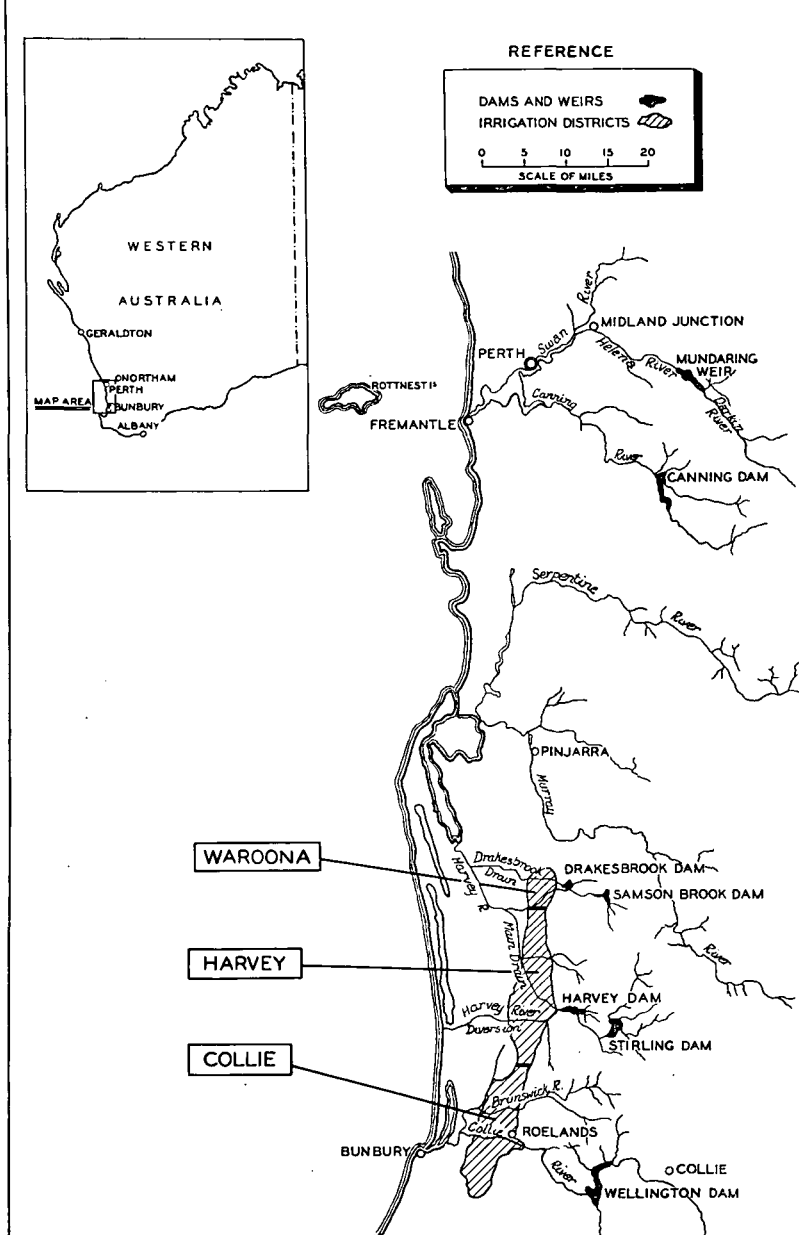


IRRIGATION AREAS - SOUTH AUSTRALIA, 1958



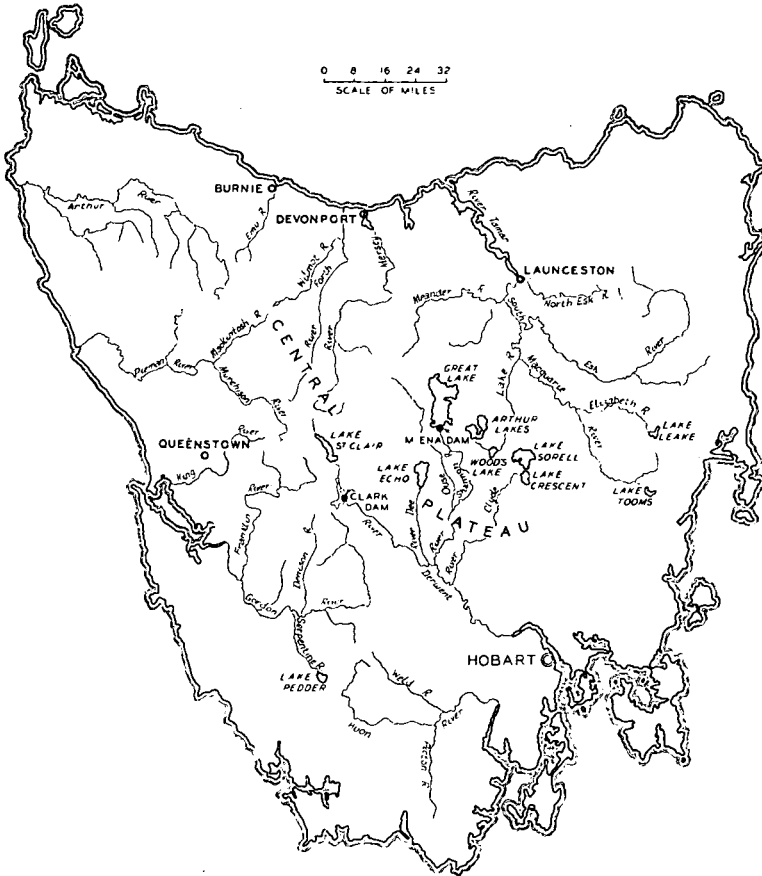
IRRIGATION DISTRICTS

WESTERN AUSTRALIA, 1958



WATER RESOURCES OF TASMANIA

1958



5. *Irrigation Systems.*—(i) *Goulburn.* The storage capacity for this system is provided principally by Eildon Reservoir. The enlargement of the storage capacity of this reservoir was completed in 1956, and will enable 600,000 acres to be irrigated when the necessary distributary works are completed. Water from Eildon Reservoir flows down the Goulburn River to the Goulburn Weir, located near Nagambie, which raises the summer level of the river about 45 feet for the purpose of diversion. From this weir, water is diverted via the East Goulburn Main Channel direct to the irrigation areas around Shepparton. The two western main channels from the weir (one of which was recently duplicated) convey water to the Waranga Reservoir near Murchison in addition to supplying part of the large Rodney District directly.

Two main outlet channels issue from Waranga Reservoir. One serves the western section of Rodney District while the other serves irrigation districts as far west as Boort, and continues into the Wimmera-Mallee Domestic and Stock System to provide a supplementary supply as far as Beulah East.

Water is also supplied to part of the Goulburn System from Cairn Curran Reservoir on the Loddon River, and Eildon itself may be used to supplement supply to the districts along the Murray River.

The main products of the Goulburn districts are dairy produce, fruit, wool and fat lambs. Annual production of canning fruits in the area is about two-thirds of Australia's total.

(ii) *Murray River System.* The waters of the River Murray are used to supply an area of more than 700,000 acres between Yarrawonga and Merbein. The districts between Yarrawonga and Swan Hill, except Tresco near Swan Hill, are supplied by gravitation and those west of Swan Hill are supplied by pumping.

The Murray Valley Irrigation District, which is served from Yarrawonga Weir, comprises 268,000 acres west of Yarrawonga between the River Murray and Broken Creek. Dairy products, fat lambs and canning fruit are the main items produced.

The gravitation system based on Torrumbarry Weir (52 miles downstream from (Echuca) serves an area of about 378,000 acres around Cohuna, Kerang, Koondrook and Swan Hill. Also included in the Torrumbarry system is the Tresco district supplied by pumping from Lake Boga. Dairying and fat lamb raising are again the major industries. Vine fruits and vegetables are grown around Swan Hill and tobacco growing is increasing in importance.

West of Swan Hill lie four Commission districts with a pumped supply—Nyah, Robinvale, Red Cliffs and Merbein. These contain a total of 1,500 holdings devoted largely to dried vine fruit although citrus fruit and table and wine grapes are of some importance. The area around Mildura is controlled by the First Mildura Irrigation Trust, the only irrigation trust operating in Victoria. It serves an irrigated area about half the combined size of the four Commission districts.

(iii) *Southern Systems.* The most important southern system is an area of 130,000 acres around Maffra and Sale, mainly devoted to dairying. This is supplied from Glenmaggie Reservoir on the Macalister River and from the natural flow of the Thomson River when the flow is adequate. Other important irrigation districts are located quite close to Melbourne around Werribee and Bacchus Marsh. These districts are intensively developed for dairying and vegetable growing.

(iv) *Wimmera-Mallee Domestic and Stock Supply System.* This system serves an area of 11,000 square miles or nearly one-eighth of the State. Without the artificial supply of water, development in this area would be meagre and hazardous owing to the constant threat of drought. The main supply is drawn from the Grampians storages and is supplemented by water drawn from the Goulburn and Loddon Rivers, via the Waranga Western Channel referred to previously, although works in progress will make the Wimmera and Mallee independent of supplies from the Goulburn and Loddon River in the near future. In addition, certain areas in the north of the system are supplied direct from pumps on or near the River Murray.

As far as possible, water is distributed in the winter and spring to reduce evaporation losses in 6,500 miles of Commission channels and 3,000 miles of farm channels. It is the

responsibility of the 10,000 farmers served to provide sufficient storage capacity on their farms to meet their domestic and stock needs for the year. In addition to meeting this demand, the Grampians storages provide a water supply for 40,000 people in 47 towns and are used to irrigate a small area near Horsham.

6. Town Water Supplies and Sewerage.—Details of water supplies and sewerage to towns and local authorities by the Commission are given in § 5 of Chapter XIX., Local Government, of this Year Book.

7. Drainage, Flood Protection and River Improvement.—The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia Flood Protection District embracing 80,000 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth £3 million a year.

Another large-scale work, which was completed during 1958–59, is the drainage of 12,500 acres of privately owned land flooded by a recent rise in the level of Lake Corangamite in the Western District. This will free a large area of the lake for grazing in normal years.

By the River Improvement Act of 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and since 1950, 16 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

8. Finance.—The capital liability of the Commission at 30th June, 1959, was £93,500,000. Of this amount, £64,000,000 was expended on irrigation and £7,000,000 on domestic and stock supply systems. Both these amounts were financed entirely by the State. The total liability for urban supply was £12,000,000 of which 60 per cent. was borne by the State and the remainder by the districts concerned.

9. Underground Resources.—Due to inadequate information as to their extent, the underground waters of Victoria have not as yet been greatly utilized. The first stage of a comprehensive survey of these resources by the Victorian State Rivers and Water Supply Commission, which is partly responsible for the location, investigation and development of subterranean waters, has been completed. It provides records of bores in the Mallee, Wimmera and Glenelg regions, and a description of the Murray Artesian Basin. Investigations have also been made into the underground water resources of local areas such as Orbost Flats, Llowalong Estate on the Avon River and elsewhere.

The Murray Artesian Basin underlies an area of 107,250 square miles, of which 26,808 square miles are in Victoria, 28,269 square miles in South Australia and 52,173 square miles in New South Wales. The quality of the water varies from suitable for domestic purposes in much of the South-western part of the basin to saline and suitable for stock in the rest of the basin. Over 300 bores exist in Victoria, ranging in depth from 50 to 3,000 feet and with an average daily flow of 3,000,000 gallons. In the last few years, the Victorian Department of Mines has expanded considerably the work of exploration for underground water.

10. Future Programme.—The main irrigation work under construction is the enlargement of the channels of the Goulburn System to distribute the extra water now available from the Eildon Reservoir and the Cairn Curran Reservoir. A considerable amount of this work has already been carried out. Other large projects include the construction of Castlemaine Reservoir and important new works in the area known as Carrum Drainage District.

11. Hydro-electricity.—Details of hydro-electricity potential and utilization in Victoria may be found in the previous chapter (*see* page 227).

§ 4. Queensland.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Queensland are given in Official Year Book No. 37, page 1122. (*See also* Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* The administration of irrigation and water supply in Queensland is under the control of a Commissioner of Irrigation and Water Supply. For a description of the development of the present administration, see Official Year Book No. 42 and earlier issues.

(iii) *Water Utilization in Queensland.* Queensland's predominant interest in the field of water conservation is the provision of stock and domestic water supplies in its great pastoral areas which contain nearly half of the Commonwealth's cattle and a seventh of the sheep. In addition to the stabilization of water supplies in the pastoral areas and the provision of water along stock routes for travelling stock, the development of irrigated pastures on the eastern seaboard for fattening stock adjacent to meat works and markets has received much attention in later years. The development of projects of water conservation and irrigation on individual farms for irrigation of pastures and fodder crops for dairy herds and for growing small crops and orchard fruits has also received attention.

The State's crops differ from those of other States in that a large proportion is tropical. Sugar-cane is the greatest individual crop, representing in value approximately 45 per cent. of total agricultural production. Approximately 18 per cent. of the sugar-cane acreage was irrigated in 1958-59 and this represented some 42 per cent. of the total irrigated area in Queensland. Queensland is Australia's major tobacco-producing State, and plans are in hand to increase annual production of this crop greatly by means of development under irrigation. The area of tobacco irrigated during 1958-59 represented 94 per cent. of the total plantings of this crop in the State.

2. *Great Artesian Basin.*—(i) *General.* Western Queensland beyond the 20 inch rainfall belt is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry Mineral Field and the Barkly Tableland. It comprises 430,000 square miles or about two-thirds of the total State area of 667,000 square miles. Statistics of bores and flow as at 30th June, 1959, are:—Artesian bores drilled, 2,620; artesian bores still flowing, 1,725; total depth drilled, 3,704,363 feet; deepest bore, 7,009 feet; total estimated flow, 208 million gallons a day. Certain bores previously classified as "ceased" have been inspected and found to be still flowing. Some ceased bores, after deepening, are again flowing. The average depth of artesian bores is 1,408 feet. Some 9,400 sub-artesian bores, within the Great Artesian Basin, have been registered in Queensland. Artesian pressure and flow are both steadily diminishing. The rate of diminution varies widely throughout the basin. Present general average rates of diminution are:—pressure, 1-2 feet/head, total flow, 2-3 per cent. per annum.

The greater part of the artesian discharge is distributed by open earth channels totalling some 15,500 miles in length. Most of the water flowing along these channels is lost by soakage and evaporation and less than 10 per cent. is actually used by stock. The amount of soakage depends largely on the permeability of the earth and the rate of evaporation varies from season to season, but the shape and maintenance of the drains constitute further factors. The effective utilization of this water could be increased by the use of piping to overcome the loss by soakage and evaporation occurring in the open earth channels.

Although artesian beds underlie such a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts, artesian bores are not economical watering facilities, because of depth, limited area to be watered, and difficult terrain for distribution of water by drains. Very few new bores exceed 2,000 feet in depth, and a new bore greater than 3,000 feet in depth is exceptional.

Shallow sub-artesian supplies, of variable quality and volume, are available at depths of less than 1,000 feet over a large area of the basin. These beds are not connected with the artesian beds. An essential practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Although the number of bores has gradually increased over the years, the total flow of all bores has declined since the peak flow of 351 million gallons a day was recorded in 1914. By 1938, the flow was only 230 million gallons a day. The decline gave rise to the fear that supplies were giving out and that the basin was seriously threatened. In 1939, the Queensland Government appointed a committee to ascertain the nature and structure of the Great Artesian Basin with particular reference to the problem of diminishing supply. In its final report, presented in 1954, the majority of the Committee found that the output will continue to decline during the next sixty years when the flow from the remaining flowing bores will be of the order of 110 million gallons per day. At this stage, the discharge from windmills, springs and other leakages and the underflow past the Queensland borders will be of the order of 20 million gallons a day. The total discharge of the order of 130 million gallons a day will be in equilibrium with the recharge of the basin. Numbers of bores on higher ground will cease to flow during the next sixty years and the area served by flowing bores will contract by perhaps 20 per cent.

A programme of strict conservation, involving the restriction of bore flows and improved bore drains, would result in smaller shrinkage of the area served by flowing bores and would actually cost less than the installation and maintenance of pumps or other watering facilities which would be required to provide alternative water supply as additional bores ceased to flow because of a policy on non-restriction. On the other hand, strict conservation would not increase the amount of water ultimately available as perennial flowing supply and would in fact decrease the amount of water passed from intake beds to aquifers within the basin by flattening the hydraulic gradient. The benefit from strict conservation was not considered sufficiently great, nor sufficiently concrete, to warrant implementation.

The quality of artesian water from the greater part of the basin is such that it is not suited for prolonged use for irrigation on most soils. Moreover, artesian supplies are not sufficient for both large scale irrigation and stock-watering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock. Detailed surveys of numerous other sources of underground water in the State, such as the smaller sedimentary basins, the Cainozoic alluvial deposits, recent coastal sands and fractured older rocks, still largely remain to be carried out.

(ii) *Bore Water Areas.* The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity and to conserve artesian supplies by fully utilizing the flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by Local Boards or by the Commissioner of Irrigation and Water Supply, acting as a Board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1958-59 are:—Areas constituted, 72; administered by Commissioner, 56; administered by local boards, 6; number abolished, 10; area benefited, 4,425,382 acres; average rate per acre, 1.8d.; number of flowing bores, 56; total flow, 24,092,000 gallons a day; drains served, 2,754 miles.

3. *Other Basins.*—Two major areas bordering the Great Artesian Basin in Queensland carry artesian water. One is located on the western slopes of Cape York Peninsula and the other in the Dawson-Mackenzie River Basin. A small area in which flowing wells occur (the Gatton Basin) extends from Gatton to the coast.

Sub-artesian water supply from the Barkly Basin which extends into western Queensland from the Northern Territory, is referred to in the section dealing with the Northern Territory.

4. *Stock Route Watering.*—During 1935, a scheme was inaugurated to water adequately stock routes in the western portion of the State including main trunk routes connecting Eromanga to Burketown, Charleville to Normanton, and Clermont to Einasleigh, with branches to railheads, a total distance of 3,117 miles. Watering facilities were also provided on subsidiary routes. Under the Stock Routes and Rural Lands Protection Act of 1944, a co-ordinating board was constituted, representative of Government departments and pastoral interests, under the direction of the Minister for Lands and with an officer of that Department as superintendent whose duty was, *inter alia*, to investigate and implement a long-range, co-ordinated plan for adequate watering of all stock routes throughout the State. Natural waters are being supplemented by artificial facilities at intervals of

about 9 miles. Construction is supervised by the Irrigation and Water Supply Commission and by local authorities. Completed facilities are vested in local authorities for control and maintenance. From 1935 to 30th June, 1959, 471 facilities had been completed and at 30th June, 1959, 66 facilities were under construction or investigation.

5. *Irrigation.*—(i) *General.* Irrigation as a means of stabilizing and increasing agricultural production is continuing to receive attention in Queensland. In addition to the Theodore Irrigation Area on the Dawson River, orthodox projects served by a channel system have been developed at Clare, Millaroo and Dalbeg, all on the Burdekin River, and Gibber Gunyah on the Dawson River. St. George on the Balonne River is also being developed. Construction in the St. George Area is approaching completion and 20 farms have been opened, of which 18 are in production. Construction of the main channel system within the Mareeba-Dimbulah Irrigation Area has continued and 25 existing farms are being supplied with water by gravity. Because of the large variations in both monthly and annual river flows, major developments cannot be undertaken until large storage works are provided. Most irrigation in Queensland is undertaken by private farmers operating under licence and obtaining water by pumping from streams or from natural underground storages. There has been considerable development during recent years of individual water conservation projects (water harvesting) to provide storage for irrigation of pastures, fodder crops and small crops, and orchards. Where available, electricity is the most popular source of power for pumping and the principal areas supplied with electricity are the Burdekin Delta, the Lockyer Valley, and the Darling Downs.

It has been estimated that about two thirds of the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been extensively developed are the Burdekin Delta (Ayr-Home Hill Area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg Area), Lockyer Valley and Redland Bay. Similar development is taking place in other areas such as parts of the Darling Downs.

Furrow irrigation is used for cotton, sugar cane, most tobacco and some other crops. Spray irrigation is adopted to a considerable extent for fruit, vegetables, fodder crops and a small part of the tobacco. Spraying is well suited to the application of water on deep soils by small pumping plants, particularly when the quantity of water available is limited. Use of the border check method in the irrigation of pasture and fodder crops has proved successful and its use is increasing.

The following table shows for each division of the State the number of irrigators and the areas irrigated for the year ended 31st March, 1959.

AREA OF LAND IRRIGATED: QUEENSLAND, 1958-59.

Division.	No. of Irrigators.	Area Irrigated (Acres).							
		Vegetables.	Fruit.	Sugar-cane.	To-bacco.	Cotton.	Other Crops.	Pastures.	Total.
Southern Queensland ..	5,040	21,523	3,943	16,322	2,024	339	31,461	7,326	82,938
Central Queensland ..	535	901	217	18	9	978	5,124	1,493	8,740
Northern Queensland ..	1,574	4,173	716	49,273	5,457	203	1,550	1,583	62,955
Total	7,149	26,597	4,876	65,613	7,490	1,520	38,135	10,402	154,633

The pattern of irrigation in Queensland is unlike that in southern States; the more important developments in tropical and sub-tropical areas are therefore discussed briefly in the sub-sections following. It should be noted that the spring to autumn "irrigation season" of the temperate southern irrigated lands is not applicable, and that round-the-year irrigation is required throughout most of the State, the timing and duration of the summer "wet" season being too variable to enable a definite non-irrigation season to be fixed.

(ii) *Lockyer Valley.* West of Brisbane and within 30 miles of that metropolitan market is the Lockyer Valley, which is portion of the Brisbane River Basin. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation. Despite a mean annual rainfall of 30 inches, the variation is great, and irrigation is necessary for continuous agricultural production. Surveys suggest that some 60,000 acres of land highly suitable for irrigation are available. Of this area, only about 30 per cent. is under irrigation, the number of pumps operating from wells and open water exceeding 550 and 600 respectively. Over 60 per cent. of the farmers operate electric pumps for irrigation purposes and a special policy designed to encourage such development is fostered by the Southern Electric Authority of Queensland. The Irrigation and Water Supply Commission has constructed a number of small weirs on Lockyer Creek with a total storage of 1,370 acre feet. These also tend to augment and conserve underground supplies. The Irrigation Research Station established at Gatton has been converted to a Regional Experimental Farm under the control of the Department of Agriculture and Stock.

The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

(iii) *Burdekin River.* The Burdekin River, which enters the sea between Townsville and Bowen, is a major factor in the life of North Queensland. In most years, heavy floods from a catchment twice the size of Tasmania cause extensive damage and traffic disruptions. On the other hand, the fertile delta area, with its underground water supplies at shallow depth, has contributed greatly to the agricultural prosperity of North Queensland. Present development is confined to the delta area. The average annual rainfall of this area is some 41 inches, but the major part falls in the months December to March. Consequently sugar growers and other farmers have tapped the underground water resources of the delta to obtain supplies in the dry periods. Sugar is the main irrigated crop, though citrus fruits, pineapples, vegetables and tobacco are also irrigated. The irrigated area is in excess of 30,000 acres, up to 1,000 acre feet of water being drawn daily from underground sources.

In the Home Hill-Inkerman areas on the south side of the Burdekin, water is obtained from shallow wells by electric pumps supplied from a local power station controlled by the Townsville Regional Electricity Board. Around Ayr, on the north side of the river, electric power from the mains of the Townsville Regional Electricity Board is now being used in place of individual internal combustion engines. At both Home Hill and Ayr, water for domestic supply is raised by a windmill on each property.

In 1940, the Burdekin River Trust was formed to safeguard the sugar areas of the Delta from erosion and floods. An irrigation research station studies the development of pastures and irrigated crops under local conditions.

A major multi-purpose scheme, involving irrigation, flood control and hydro-electric power generation, is being investigated by the various interested government departments under the general supervision of the Burdekin River Authority. The development envisaged includes a dam storing 6,584,000 acre feet, which would make water available for the irrigation of at least 250,000 acres. The principal industries anticipated are tobacco-growing, dairying, and cattle-fattening, with sorghum, sunflowers, peanuts, cotton and sugarcane as other possible forms of production. The projected scheme will change the Burdekin from a mixed blessing to one of the Commonwealth's greatest resources for agricultural and industrial production.

The Clare Irrigation Area, constituted in 1949, the Millaroo Irrigation Area, constituted in 1952, and the Dalbeg Irrigation Area, constituted in 1953, are at present predominantly used for tobacco production. Located from 25 to 65 miles upstream from the mouth of the Burdekin, these areas comprise 12,000 acres and obtain irrigation waters from central pumping stations drawing initially on the unregulated flow of the Burdekin. A temporary storage of 6,700 acre feet capacity has been constructed about 79 miles upstream from the mouth of the Burdekin. At 30th June, 1959, 146 farms were occupied and total production for 1958-59 was valued at £795,000.

(iv) *Dawson Valley.* The Dawson River, a 392-mile long tributary of the Fitzroy River, rises in the Carnarvon Range and joins the Mackenzie River to form the Fitzroy 50 miles west of Rockhampton. Lands bordering the river in its northerly course of about 170 miles before its confluence with the Mackenzie River are commonly termed

the Dawson Valley. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923. Storage for the scheme was to be provided by a dam of 2,500,000 acre feet capacity at Nathan Gorge. Much investigational and survey work on the scheme was carried out, but the general financial depression and limited loan funds brought about the cessation of this work. However, the initial step in construction had been completed, comprising a weir on the river at Theodore and irrigation works to serve an area of 3,500 acres supplied from a central pumping station. Two additional weirs have since been built, giving a total storage of 10,280 acre feet. Pasture, vegetables, cotton, fruit and dairy products are the principal produce. Attention has recently been given to the former plans for the valley and earlier work is now under close scrutiny as a prelude to future development. Construction of works to serve some 2,400 acres at Gibber Gunyah, adjacent to the existing Theodore Area, has been completed and 19 farms have been occupied.

(v) *Mareeba-Dimbulah Area.* The existence of large areas of sandy soils suitable for tobacco production in the valleys of the Walsh and Barron Rivers in the neighbourhood of Mareeba and Dimbulah has led to large-scale investigations into possible irrigation development in the area. Surveys indicate that 40,000 acres of land suitable for irrigated culture, including 32,000 acres suitable for tobacco, are available. In 1958-59, some 4,116 acres of high-grade tobacco were grown. Seven weirs with a combined capacity of 2,650 acre feet have been completed on a number of streams to store water for irrigation.

During 1952, a report on the utilization of waters of the Barron and Walsh Rivers was prepared and the establishment of an irrigation undertaking approved by the Queensland Government. The projected undertaking provides for construction of a major storage at Tinaroo Falls on the Barron River to store 320,000 acre feet, and construction of irrigation works to serve 78,000 acres commanded by this storage. In each case, construction has commenced. Further development by construction of a second storage at Nullinga on the Walsh River has been deferred for the present. Tobacco will be the basic crop while peanuts, vegetables, maize, cotton and stock fattening also appear suitable.

(vi) *Border Rivers Project.* The development of the rivers constituting portion of the border between Queensland and New South Wales is under the authority of the Dumaresq-Barwon Border Rivers Commission on which each State is represented. For information on the project see page 248.

(vii) *Balonne River.* The St. George Irrigation Area has been constituted and construction of works to serve some 11,000 acres is in progress. Water supply for the area will be obtained by pumping from the combined weir and road bridge on the Balonne River at St. George.

6. *Channel Country.*—Extensive investigations have been made of the Channel Country fed by inland rivers in the south-western corner of the State. This country is intersected by shallow and irregular flood channels through which huge volumes of flood waters pass in favourable seasons; consequent on the flooding, a heavy growth of natural pastures is produced on the flooded lands, providing feed in quantities far in excess of that required for the normal stock population of the area. If the occurrence of flooding could be made more reliable by means of storages to create artificial floods, the pastoral resources of the area would be enormous. However, inquiries directed on these lines have revealed that little can be done to increase or stabilize the turn-off of fat cattle by artificial storage.

At 30th June, 1952, 41 watering facilities, at an estimated cost of £277,000, had been proposed under a Commonwealth-State agreement for stock routes through, and in the approaches to, the Channel Country. By 30th June, 1959, 31 had been completed, while four sub-artesian bores and one excavated tank were under construction.

7. *Hydro-electricity.*—An outline of Hydro-electricity Schemes operating in Queensland is given in the previous chapter (see page 230).

§ 5. South Australia.

1. *General.*—(i) *Rainfall.* Brief particulars of the climatic conditions in South Australia are given on page 1129 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act governing the supply of water through mains in water districts for townships and farm lands. The Water Conservation Act provides for the construction of storages in non-reticulated areas and authorizes the Minister to “divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under, or on, any land entered upon for the purpose of supplying water to the inhabitants of any water district”.

(iii) *Methods of Catchment and Conservation.* Early in the history of the State the rights to all running streams, springs and “soaks” were vested in the Crown. The Water Conservation Act was passed in 1886 and, up to 30th June, 1959, more than 550 dams, tanks and “rainsheds” had been built or acquired by the State, in addition to 460 wells and 340 bores, at a total cost of £1,759,395. The “rainsheds” comprise timber frameworks roofed with galvanized iron to catch precipitation which is delivered to storage tanks and is available for surrounding settlers and travellers. Rainshed catchments vary from a few hundred square feet to four acres, discharging into tanks ranging from 2,000 to 500,000 gallons. Over most of the State, extraordinary precautions are taken to counteract evaporation. Pipelines in preference to open channels and covered storages are used to reduce evaporation. Meters are attached to practically all services to check usage by individual consumers.

2. *Irrigation.*—In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped on to the land or gravitated from the river. The upper Murray of South Australia and the Mildura area of Victoria formed the cradle of Australian irrigation. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. Including land allotted for War Service Land Settlement purposes, the Department of Lands administers in the Murray Valley an area of 32,758 acres of irrigable high land together with 9,449 acres of reclaimed swamp and 167,175 acres of non-irrigable land in the irrigation areas and 29,747 acres of land temporarily leased and reserved for commonage or other purposes, amounting in all to 239,129 acres. In addition, the Renmark Irrigation Trust controls 20,557 acres, of which 9,550 are irrigated. Water used for irrigation purposes in 1958–59 in the high land irrigation areas controlled by the Department of Lands, excluding War Service Land Settlement areas in course of development, was approximately 100,000 acre feet and, in addition, approximately 63,000 acre feet were applied to the reclaimed areas. In the Renmark area, approximately 29,000 acre feet of water were used for irrigation in 1958–59. The production of the upper Murray areas is almost exclusively fruit and vines. Principal crops are sultanas, currants, lexias, apricots, peaches, nectarines, pears and figs (mainly for dried fruit), wine grapes, and citrus fruits. Before irrigation, these semi-arid lands were of little productive value.

Renmark Irrigation Trust is administered by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold, self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of channel for reticulation to 9,550 acres.

The following tables show the acreage devoted to various crops in the government-controlled and Renmark Irrigation Trust areas on the upper Murray, and in the government-controlled reclaimed swamp districts near the mouth of the Murray, which are devoted to dairying.

AREA OF LAND UNDER IRRIGATED CULTURE, 1958-59.
IRRIGATION AREAS ADMINISTERED BY THE DEPARTMENT OF LANDS AND
THE RENMARK IRRIGATION TRUST.
(Acres.)

Area.	Vine Fruits.	Tree Fruits.	Citrus Fruits.	Sown Pastures.	Total.
<i>Areas Administered by the Department of Lands.</i>					
<i>Orchard Land—</i>					
Berri	5,104	1,104	1,320	..	7,528
Cadell	564	154	112	..	830
Waikerie	1,826	624	1,288	..	3,738
Cobdogla	3,754	172	194	..	4,120
Moorook	323	129	186	..	638
Kingston	222	87	247	..	556
Mypolonga .. .. .	..	337	527	..	864
Chaffey—Ral Ral Division ..	795	103	8	..	906
<i>Total</i>	<i>12,588</i>	<i>2,710</i>	<i>3,882</i>	<i>..</i>	<i>19,180</i>
<i>War Service Land Settlement—</i>					
Cooltong Division	375	255	482	..	1,112
Loxton area	3,067	1,100	2,185	..	6,352
Loveday Division	235	47	22	..	304
<i>Total</i>	<i>3,677</i>	<i>1,402</i>	<i>2,689</i>	<i>..</i>	<i>7,768</i>
<i>Reclaimed Swamp Land—</i>					
Monteith .. .. .	..	..	..	960	960
Mypolonga .. .. .	..	..	..	1,314	1,314
Wall .. .. .	..	..	..	490	490
Burdett .. .. .	..	..	..	109	109
Mobilong .. .. .	..	..	..	429	429
Long Flat .. .. .	..	..	..	339	339
Neeta .. .. .	..	..	..	561	561
Pompoota .. .. .	..	..	..	422	422
Cowirra .. .. .	..	..	..	567	567
Jervois .. .. .	..	..	..	3,602	3,602
<i>Total</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>8,793</i>	<i>8,793</i>
<i>Renmark Irrigation Trust.</i>					
<i>Renmark Irrigation Trust ..</i>	<i>7,330</i>	<i>950</i>	<i>1,270</i>	<i>..</i>	<i>9,550</i>

3. Water Supply Schemes.—(i) *Adelaide Metropolitan Water Supply.* Adelaide derives its water from five reservoirs in the nearby Mount Lofty Ranges, and by means of pumping stations and a pipeline from the River Murray at Mannum. The reservoirs have a storage capacity of 51,497 acre feet and the pipeline a capacity of 53,627 acre feet a year. The consumption for the year 1958-59 was 80,476 acre feet, equivalent to a consumption of 108 imperial gallons per head per day. The capital cost to 30th June, 1959, was £29,936,090.

(ii) *Country Reticulated Supplies.* Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa, and South Para Reservoirs (36,290 acre feet) in the Barossa Ranges. To supplement these storages, a branch main from the Mannum-Adelaide Pipeline feeds into Warren Reservoir.

Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, with connexions to the Warren system and the Morgan-Whyalla Pipeline. The 223-mile pipeline from Morgan on the River Murray to Whyalla was designed to deliver annually 4,400 acre feet to Whyalla and 3,300 acre feet to the northern districts. Branch pipelines have been constructed to Jamestown, Caltowie, Peterborough, Clare and Woomera. Yorke Peninsula is now being reticulated. A pipeline has been laid from the Bundaleer Reservoir, and the reticulation system will be extended south to Edithburgh. Work is in progress on the construction of the Myponga Reservoir. A concrete arch dam is being built on the Myponga River, impounding 22,000 acre feet of water. This storage will be used to supply towns and country lands south to Normanville and as an additional source of supply for the Adelaide Metropolitan area.

Water conservation and distribution works in country districts have cost £31,203,396 (exclusive of river control and irrigation works on the River Murray) and contain 6,349 miles of water mains. The capacity of country storages is 71,569 acre feet, serving a population of approximately 306,500.

4. *Underground Water.*—The occupied portion of South Australia is, on the whole, well endowed with underground water and the extent of the several artesian basins is reasonably well known. There are also considerable areas, notably in the south-east of the State, in which ground water occurs. Quality varies widely, but a great deal is at least useful for watering stock and this is the major use to which it is put.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. However, deep boreholes have been drilled by the government to provide watering places along stock routes, and pastoralists rely largely on supplies from non-pressure aquifers at shallower depths. Marree township is supplied from this source, its deepest bore being 575 feet.

The use of the waters of the Murray Basin is essential to settlement in the Murray Mallee country and in the south-east of the State, especially for farms and township supplies to Mount Gambier, Naracoorte, Bordertown, Pinnaroo, Penola, Lamerook, Coonalpyn, Nangwarry, Mount Burr, Kingston (S.E.), Parilla and Karoonda. The deepest bore in this Basin is 1,805 feet. Towns elsewhere which are supplied from bores include Mount Barker, Port Lincoln, Peterborough, Warooka and Willunga.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, for which the Government maintains about 30 drills. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne and considerable tracts of previously undeveloped country in the Upper South-east, Kangaroo Island and Yorke Peninsula have been found to have usable water and are now being opened up.

Ground water resources surveys are undertaken continually by departmental geologists, the results being published in various bulletins and reports issued from time to time. The *Groundwater Handbook* published in 1959 by the Department of Mines provides a comprehensive detailed review of the State's ground water resources.

5. *Farm Water Schemes.*—While the Department of Mines and the Engineering and Water Supply Department give assistance to individual farmers in the provision of supplies from underground sources, a great part of the farming areas obtains water supply under pressure from the extensive distribution systems connected to various reservoirs or the Murray River.

6. *South-Eastern Drainage.*—Nature has played an ironic prank in the south-east of South Australia where it has been necessary to construct costly drainage schemes to dispose of surplus water. The area comprises a series of valleys or flats separated by low ranges parallel to the coastline which prevent natural drainage. The highest "range" is approximately 50 feet above the adjacent flat and the most easterly flat, some 50 miles from the coast, is 200 feet above sea level. The ranges are generally of poor soil or stony but the flats are fertile.

The Millicent Drainage System was completed in 1885, when 100,000 acres were reclaimed by 225 miles of drains at a cost of £150,000, which was included in the land allotment prices.

The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders.

The area is bounded on the east by the State Boundary, and on the west by the sea coast. It extends from about 20 miles north of Kingston southerly to near Millicent and Kalangadoo. Up to 1948, about 430 miles of drains had been provided at a cost of £720,876. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948, the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, involving an excavation of 8,100,000 cubic yards has been completed, and a start has been made on the northern section of 140,000 acres.

The capital cost of drainage in the South-Eastern Drainage Area System at 30th June, 1959, was £4,564,951, and the length of drains constructed was 666 miles.

§ 6. Western Australia.

1. General.—(i) *Rainfall.* Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* Natural water rights in the State, with few exceptions, are vested in the Crown. Irrigation districts are administered by the Minister for Water Supply, Sewerage and Drainage under the Rights in Water and Irrigation Act 1914–1951, and he is advised by an Irrigation Commission representing the local irrigationists and governmental technical and financial branches. Water supplies in country areas in Western Australia coming under the provisions of the Water Boards Act 1904–1954, and the Country Areas Water Supply Act 1947–1957 are controlled either by the local authority or by the Water Supply, Sewerage and Drainage Department. Those controlled by the Department (except for some local water supplies to country towns still under the provisions of the Water Boards Act) form the Country Areas Water Supply, consisting of the Goldfields and Agricultural Water Supply, the Great Southern Towns Water Supply and local water supplies to country towns and districts. The Department also controls individual water supplies serving isolated mines, stock routes, and agricultural areas.

2. *Irrigation.*—(i) *South-West.* The main irrigation areas are situated along the South-Western Railway between the towns of Waroona (70 miles from Perth) and Dardanup (116 miles from Perth).

The Water Supply, Sewerage and Drainage Department controls three irrigation districts—Waroona, Harvey and Collie River—the total area irrigated in these districts during 1958–59 being 25,252 acres and the total water used approximately 90,000 acre feet. The total of acre waterings (that is, the number of acres watered multiplied by the average number of waterings) was 148,632. Investigations are being carried out with a view to irrigating a further 30,000 acres south of the Collie River Irrigation District.

The Waroona Irrigation District (10,397 acres) is supplied from Drakes Brook Dam (1,854 acre feet capacity) and Samson Brook Dam (6,624 acre feet), the Harvey Irrigation District (37,269 acres) from the Harvey Weir (8,370 acre feet) and Stirling Dam (46,368 acre feet), and the Collie River Irrigation District (36,020 acres) from the Wellington Dam (29,440 acre feet).

The following table, which shows acre waterings supplied to crops in the irrigation districts of Harvey, Waroona and Collie River during the seasons 1954–55 to 1958–59 illustrates the general growth of these irrigation schemes.

IRRIGATION, WESTERN AUSTRALIA: ACRE WATERINGS(a).

Year.	Pasture.	Fodder.	Potatoes.	Vegetables.	Orchard.	Flax, Broom Millet, and Preparation of Ground.	All Crops.
1954–55	112,659	3,268	2,363	3,294	845	121	122,550
1955–56	108,468	3,599	1,834	3,452	946	127	118,426
1956–57	129,502	3,757	3,995	3,317	1,024	119	141,714
1957–58	133,634	5,384	3,299	2,947	972	..	146,236
1958–59	136,940	6,324	1,858	2,495	1,014	1	148,632

(a) Number of acres watered multiplied by average number of waterings.

(ii) *General.* In 1958–59, the total area irrigated in Western Australia was 44,102 acres made up of vegetables (8,211 acres), fruit (6,850 acres), vineyards (630 acres), pastures (24,982 acres) and other crops (3,429 acres).

An area of approximately 650 acres of Gascoyne River flats adjacent to Carnarvon is under irrigated cultivation. The principal crops are bananas and beans but others such as tomatoes are also grown. For this agriculture, some 130 acre feet of water a week are drawn from river underflow.

On the Liveringa flood plain, 65 miles south east of Derby, commercial production of rice has been achieved following successful experimental work. Irrigation water from the Fitzroy River is diverted through Uralla Creek, an anabranch, for 25 miles to the rice growing area where a natural storage of approximately 1,200 acre feet exists. During periods of low flow in the Fitzroy River, the supply of water is augmented by pumping.

The Ord River in the Kimberley Division of Western Australia traverses a tropical area served with monsoonal rains of irregular incidence and quantity, varying from 20 inches in the south to 30 inches in the north. The hottest months (December to March) are also the months of highest rainfall. Communications and population are sparse. The Western Australian Government is considering a proposal to build a dam to conserve 3,000,000 acre feet of water, equipped with a hydro-electric plant, which might supply water for an area of some 200,000 acres agriculturally and topographically suitable for irrigation. Investigations show that the climate and soil conditions are suitable for sugar cane, rice, cotton, safflower and various oil seeds. The economic production of these and other crops, as well as the possible use of such irrigation areas for fattening of cattle, is being examined at the Kimberley Research Station on the Ord River.

3. *Water Supply Schemes.*—(i) *Metropolitan.* Particulars relating to the Metropolitan Water Supply are given in § 5 of Chapter XIX., Local Government.

(ii) *Goldfields and Agricultural Water Supply.* Western Australia has one of Australia's most spectacular water supply schemes, and a brief account of its development will be found on page 1134 of Official Year Book No. 37. Mundaring Reservoir on the Helena River, 26 miles from Perth, is the source of water supplied to the Eastern Goldfields and has a capacity of 62,560 acre feet and a catchment of 569 square miles. The water passes through 346 miles of main, mostly steel and 30 inches in diameter, equipped with eight pumping stations.

Maximum pumping capacity from No. 1 Pumping Station at Mundaring Reservoir is nominally 15.9 million gallons a day. The total capacity of all receiving, regulating, standby and service tanks along the main pipe line is 154 million gallons which includes three standby reservoirs at Kalgoorlie having a combined capacity of 60 million gallons.

Hundreds of miles of branch pipe lines have been laid to mining areas, agricultural areas and country towns, a notable one being the Norseman extension of 101 miles. The system serves some 74 towns and water is reticulated to over 2,000,000 acres of mixed farming lands. The total length of pipe lines is 2,756 miles and the number of services is 21,799. The total quantity of water pumped from Mundaring in 1958–59 was 3,002 million gallons. The total cost of the scheme to the State Government to the end of 1958–59 was £11,856,953. Under the terms of the Comprehensive Water Supply Scheme the Commonwealth Government has contributed a further £2,196,486 making a total cost of £14,053,439.

District water supply schemes established for the purpose of supplying certain country towns and mixed farming lands have been absorbed into the Goldfields and Agricultural Water Supply Scheme. For further particulars see Official Year Book No. 37, page 1135.

(iii) *Comprehensive Water Supply Scheme.* A comprehensive water supply scheme to supplement water supplies to the goldfields, agricultural areas, and country towns, authorized in 1947 as a joint work between the Commonwealth and State and estimated to cost £10,000,000 is at present (1959) under construction in two main parts. The northern section is an enlargement and extension of the Goldfields and Agricultural Water Supply. The southern section is the Great Southern Towns Water Supply. Linked with Wellington Dam (initially an irrigation work on the Collie River) by 80 miles of 30-inch diameter pipe through three pumping stations to Narrogin, it now supplements the existing water supplies to country towns along the Great Southern Railway, north to Brookton and south to Katanning. The raising of the impounding wall of Wellington Dam to increase its storage to about 150,000 acre feet is in progress. Expenditure on the Scheme to 30th June, 1958, amounted to £6,618,037.

(iv) *Local Water Supplies.* Local schemes other than above comprise those in the remaining agricultural and mining areas, including the North-West and Kimberley Divisions. Sixty-two separate reticulated water supplies serve country towns and districts. Of these, 55 are controlled by the Water Supply, Sewerage and Drainage Department and the remainder by local authorities.

(v) *Commonwealth and State Government Railways.* Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the Railways from other sources, e.g., Public Works and Metropolitan Water Supply Departments.

(vi) *Catchments.* The water supplies to these country schemes come from stream flow, dams, tanks, wells and bores.

A total of 66 rated stream gauging stations is operating in the South-West and Kimberley Divisions. Three types of catchment peculiar to this State developed in connexion with local water supplies and deserving special mention are:—rock catchments, which consist of mostly clear granite out-cropping rock, from which the overall run-off from rain amounts to approximately 40 per cent.; bituminous catchments, which are areas which have been sealed with emulsified bitumen—some hundreds of acres have been so treated and yield a run-off of approximately 80 per cent. of the rainfall; and roaded catchments, where selected areas of a catchment are cleared, graded and formed into roads to assist in obtaining additional rainfall run-off.

4. *Underground Water.*—Individual farmers, orchardists, market gardeners and others pump ground water from wells and bores, using windmills, engines or electric power. Water is also obtained from artesian and sub-artesian bores. The Public Works Department hires out to local authorities boring plants which are then hired out to farmers to assist their boring operations. In addition, the department operates its own boring plants and contracts with private firms in connexion with water supply works.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins have been made as a result of the extensive geological surveys in connexion with oil exploration during the past ten years and most of these results are now in the course of publication. In view of the importance of finding water for towns and farms in low rainfall areas outside the sedimentary basins, the Geological Survey of Western Australia and the Commonwealth Bureau of Mineral Resources recently combined to apply geophysical prospecting to the search for water in weathered granites in the south-western part of the State. The results of this work so far have been promising.

§ 7. Tasmania.

1. *General.*—(i) *Rainfall.* Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Main Purposes of Conservation and Utilization.* Owing to Tasmania's fortunate rainfall position, scarcity of water is not a serious problem in normal seasons. Conservation of water for hydro-electric generation is the predominant interest, and conservation for domestic and industrial purposes is more important than irrigation. Conservation of water on farms is not practised to the same extent as on the mainland, probably because running streams and good rainfall are on a more generous scale. Provision of artificial storages (apart from house tanks) is rare, but progressive landowners are beginning to take advantage of modern plant, such as bulldozers, to provide small excavated storages on their properties. Underground water is of poor quality but a small quantity, which has been exploited to a limited extent by bores and windmills, exists over an area in the Midlands. Geological conditions do not appear to favour the utilization of underground water except on a minor scale.

(iii) *Administration.* On 1st September, 1958, a Rivers and Water Supply Commission was brought into operation with control over all natural waters. The Commission does not own the waters but may take them subject to existing rights, of which the most important are riparian rights. In addition to licensing the use of water, the Commission supervises

the construction of municipal water supply schemes which was previously a function of the Water, Sewerage and Drainage Board. It has similar functions in relation to river improvement and irrigation.

2. Hydro-electricity.*—Tasmania depends entirely on water for power development. The Hydro Electric Commission, the authority controlling the generation of electricity in Tasmania, conducts a continuous survey of the water power resources of the State assisted by modern methods such as aerial photography and geophysical exploration.

Much of the water potential is located on the Central Plateau with an area of about 1,500 square miles at an altitude of from 2,000 to 4,000 feet and subject to rainfall of from 30 inches a year in the east to 80 inches on the western perimeter. On the plateau are a large number of lakes which provide the means for storage at low cost. These include Great Lake with an area of 58 square miles, Lake St. Clair and Lake Echo each more than 12 square miles, and others of smaller area.

The Derwent River and its tributaries which flow south-easterly carry off by far the greater part of the water which falls on the plateau and these rivers are therefore the most abundant source of power. They have been the cheapest to develop to date and most of the existing generating stations are located on them.

The three main rivers running westerly from the plateau—the Arthur, Pieman and Gordon—have only a small portion of their catchment areas at high level, but they run through regions of high rainfall and their power potentials are considerable. However, because of inaccessibility and climate, development of these rivers may be rather expensive and has been deferred so far in favour of more convenient schemes.

Rivers draining from the plateau towards the north and north-west coast, including the Emu, Forth and Mersey, have small catchments at high levels and no natural storages.

Two other important water power sources, independent of the Central Plateau, are the South Esk River in the north and the Huon River in the south. A power station at Trevallyn, near Launceston, utilizes water from the South Esk. The Huon has a large low-level catchment in the high-rainfall area near the west coast. Storage could be provided on this river at a reasonable cost and, because of its proximity to Hobart, a future power station would have considerable value for peak load development.

3. Industrial.—Three principal industrial schemes have been installed privately. Australian Newsprint Mills Ltd. pump approximately six million gallons a day from the Derwent River at Lawitta for the Boyer Mills. Associated Pulp and Paper Mills Ltd. pump several million gallons a day from the Emu River at Burnie, and Titan Products Pty. Ltd. reticulate water from Chasm Creek to their factory at Heybridge. In addition, the State has constructed a regional water scheme to serve the Australian Aluminium Production Commission's plant at Bell Bay on the River Tamar and to supply several municipalities with bulk water for domestic and industrial purposes.

A second regional water scheme draws water from the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities. Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State which is largely unsettled. Diversion to the eastern side of the watersheds is not regarded as practicable.

4. Irrigation.—There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a scheme in the Coal Valley. Preliminary investigations have also been made in the Jordan Valley. The Water Act 1957 provides for irrigation works to be undertaken by municipalities and by Trusts constituted for the purpose, but no such works have been undertaken to date. All systems operating are privately owned, and with one exception (at Bushy Park) are single-farm units. At Bushy Park, a small system serves a group of properties. The larger proportion of the area under irrigation is watered by gravitational systems and the remainder comprises areas devoted to vegetables and served by municipal water supplies. Irrigation in Tasmania was applied in 1958–59 to 13,431 acres devoted to: hops (1,292 acres); fruit (1,737 acres); pastures (7,502 acres); green fodder, etc. (782 acres); and other crops (2,118 acres).

* See also Chapter VII.—Electric Power Generation and Distribution, p. 235.

§ 8. Northern Territory.

1. **Climate and Topography.**—Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Official Year Book No. 37 and in this issue information on climatic conditions will be found in Chapter II.—Physiography, and a brief outline of contour and physical characteristics in Chapter V.—The Territories of Australia.

2. **Administration.**—Under the Control of Waters Ordinance 1938-1959 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and diversion of water is prohibited except under prescribed conditions. There is a Water Use Branch in the Northern Territory Administration under the control of a Director. The functions of the Branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, flood prevention and control.

3. **Underground Water.**—The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry which provides the bulk of the Territory's income. The inadequacy of surface water during the dry season underlines the importance of underground water supplies in the Territory where most of the cattle population is dependent on underground supplies for three to five months each year.

Rainfall is one of the factors controlling cattle population but geological features, controlling both soils and the storage of underground water, are even more important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, this area has a comparatively low carrying capacity for cattle and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in the winter despite dry conditions.

South from this well-watered northern-most portion, the Territory becomes progressively drier, with an annual average rainfall of only five inches at the margins of the Simpson Desert in the south-east corner. In the lighter rainfall areas, the search for potable underground water becomes exacting but, in general, the regions providing the best pastures—the Ord-Victoria Region, the Barkly Tablelands and smaller areas in the Alice Springs district—provide also sub-surface conditions suitable for the storage of water. This comes about largely because, in these areas, both pasture and water are related to flat lying or gently folded limestones or volcanics of Upper Proterozoic or Cambrian age, overlying the basement of older, more tightly folded, metamorphic rocks and granites which crop out over wide areas within the Territory.

In the Ord-Victoria Region, the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Ground water is obtained in shallow bores averaging 70 to 80 feet in depth and producing small supplies which range up to 1,500 gallons an hour. For the most part, water is stored in joints, faults or cracks in the rocks although in places sub-artesian conditions pertain and, on the whole, selection of bore sites is difficult. There are also small sedimentary basins in the region, some of which yield sub-artesian, and in places, artesian water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone, sandstone and shale of the Barkly Basin. In most places, underground water is under pressure (sub-artesian) but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent. of the bores is suitable for stock and over 50 per cent. of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

Considerable research has been undertaken in the last three years into increasing the Alice Springs water supply from alluvial basins and provision of a water supply for the mining town of Tennant Creek from the Cabbage Gum Basin, a small basin in deeply weathered Precambrian rocks, 15 miles south of the town.

Similar basins to the Cabbage Gum probably occur in the Territory, south of Alice Springs. If present tests of the Cabbage Gum Basin are successful, it is possible that greater supplies of water than previously expected may be discovered in this area.

A review is being made of the information available concerning the number of bores and wells sunk in the Territory. Up to September, 1959, 1,871 bores and wells had been registered. Of these, 883 were on pastoral properties, 47 on native reserves, 13 for town water supplies and six on mining fields. The number of registered stock route bores established by the Government is 176.

4. **Irrigation.**—There are no large-scale water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for a further dam site to augment Darwin's water supply and to provide reticulated water to properties without natural waters are expected in the near future. Hydrological investigations are being carried out by the Administration and a public company to determine the supply of water and the best methods of control and use in the potential rice-growing areas of the Territory. A total of 86 gauging stations has been established in the Territory. They are of various types, namely long-term automatic, short-term automatic, staff gauge-daily readings, and staff gauge-intermittent readings, of which 24 are associated with proposed rice growing areas. The remaining gauging stations have been located to assess the river water potential of the Territory. A further 70 stations are planned for installation over the next two years. Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River and Alice Springs areas with only small acreages being utilized.

The Katherine River appears to offer irrigation potentialities on the level soil below the township. Approximately 14 properties in and around Katherine are at present drawing water from the Katherine River for irrigation purposes, vegetables and pastures being the usual crops grown. The Katherine River passes through a gorge upstream of the town under conditions which appear suitable for dam construction. The Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production. The Administration is preparing a programme of extension work into saline water conversion under Territory conditions. For further particulars, *see* page 1138 of Official Year Book No. 37.

§ 9. Papua and New Guinea.

1. **Rainfall.**—Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 231 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua).

2. **General.**—For a general description of these territories *see* Chapter V.—The Territories of Australia, page 129, of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet. However, complete data regarding water resources are not available.

The largest rivers in the Territory include the Fly (a description of which is given in Chapter XXVI. of Year Book No. 40), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles) and the Markham (110 miles).

The main water conservation interest in New Guinea at present is the hydro-electric potential which is extensive. An outline of schemes at present in operation is given in the previous chapter.

CHAPTER IX.

POPULATION.

NOTE.—The figures shown throughout this chapter for the Census of 30th June, 1954, are the final results, and population estimates shown for the intercensal period 1947 to 1954 are revised figures which have been adjusted in accordance with these results.

In general, the remaining statistics in this chapter cover the year 1959. More detailed figures will be found in the annual bulletin, *Demography*.

§ 1. Population Statistics.

Population statistics relating to Australia or to the component States and Territories as at specific dates are of two types—

- (i) *Those ascertained by census enumeration.* These results attain a very high degree of accuracy and may generally be accepted without reservation.
- (ii) *Estimates derived by the application of vital and migration statistics to census data.* In general, three estimates are made for any specific date:
 - (a) Original estimates for dates subsequent to a census made before another census is taken. These estimates represent the population ascertained at the Census, plus natural increase and recorded net migration since the Census. As complete records of interstate migration are not available, the estimated State or Territory populations so derived are approximate, and are subject to revision when the actual population of each State or Territory is ascertained at the next Census. For some States such revisions were substantial after the Census of 1954.
 - (b) Two-stage revision of the original estimates for each newly completed intercensal period to adjust for the difference between the new census result and the comparable estimate. This is to bring intercensal estimates into line with the two census populations and thus effect adjustment for unrecorded movement of population in the intercensal period. The first revision is reconciled with preliminary census results and the second revision with final census results.

Final revised figures become the permanent population estimates. For purposes requiring a mean population for any twelve-month period such mean is calculated as described in § 4. As populations at specific dates are used in these calculations, consequential revisions are made in mean populations when the estimates for specific dates are revised as described above.

In accordance with this policy, all Australian population statistics shown in this issue of the Official Year Book for dates up to 30th June, 1954, and all mean populations for calendar years up to 1953 and financial years up to 1953–54 are final. Population statistics for dates or years subsequent to these are subject to revision when another census is taken.

Since the establishment of the Commonwealth Bureau of Census and Statistics, the populations of the States and Territories have been estimated in a comparable manner and attention has been given to the improvement of the basic demographic data from which the estimates are compiled. The principal source of error in early estimates lay in the migration records, both overseas and interstate, and efforts were directed towards their improvement. The 1911 Census disclosed an error in the precensus estimates equivalent to proportions of 14.5 per cent. and 10.0 per cent., respectively, of recorded male and female overseas departures from Australia. These proportions were used as adjusting factors to recorded overseas departures during the intercensal period 1911–21. These adjusting factors were reduced after the 1921 Census to 1 per cent. for males and 4.5 per cent. for females and were discontinued altogether after the 1933 Census. From the results of the 1954 Census, it appears that the accuracy of the records of overseas migration is such that, in future, little adjustment to recorded figures will be necessary for Australia as a whole.

It is improbable that the same degree of accuracy as has been attained in the record of overseas migration can be reached in the case of interstate movements. Records are made of interstate passengers by sea, rail and air, but it is impracticable, with occasional important exceptions, to record the movements by road.

§ 2. The Census.

1. **Census-taking.**—Although “musters” of the population were carried out at least annually from 1788 to 1825, the first regular census in Australia was not taken until 1828, when a count of the population of the Colony of New South Wales was made. Subsequent censuses were taken sporadically in the various colonies until 1881, when a census was taken on the same date throughout Australia.

In 1891 and 1901, census-taking was still in the hands of the Government Statisticians of the States, but, in 1911, under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first census of the Commonwealth of Australia. The second was taken in 1921, the third in 1933, the fourth in 1947 and the fifth in 1954.

2. **Population recorded at Censuses.**—State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1954 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for three censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in Chapter 1, § 4 and § 5. The total populations recorded at the censuses taken in the Colonies from 1828 to 1876 were shown in Official Year Book No. 40, page 326.

POPULATION: AUSTRALIAN CENSUSES, 1881 TO 1954.

Census.	Population Enumerated (Excluding Full-blood Aborigines).							
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)
MALES.								
3rd April, 1881 ..	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..
5th April, 1891 ..	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..
31st March, 1901 ..	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..
3rd April, 1911 ..	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992
4th April, 1921 ..	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567
30th June, 1933 ..	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805
30th June, 1947 ..	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092
30th June, 1954 ..	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229
FEMALES.								
3rd April, 1881 ..	339,614	409,943	88,200	130,231	12,646	54,543	104	..
5th April, 1891 ..	517,471	541,866	169,939	153,292	19,975	69,107	338	..
31st March, 1901 ..	644,841	597,350	221,126	177,861	71,249	82,851	595	..
3rd April, 1911 ..	789,036	659,960	276,307	201,200	120,549	93,620	576	722
4th April, 1921 ..	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005
30th June, 1933 ..	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142
30th June, 1947 ..	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813
30th June, 1954 ..	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086
PERSONS.								
3rd April, 1881 ..	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..
5th April, 1891 ..	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..
31st March, 1901 ..	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..
3rd April, 1911 ..	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714
4th April, 1921 ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572
30th June, 1933 ..	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947
30th June, 1947 ..	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905
30th June, 1954 ..	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315

(a) Part of New South Wales prior to 1911.

The final results of the 1954 Census of the Australian External Territories will be found in § 13 of this chapter.

3. **Increase since 1881 Census.**—The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION: INTERCENSAL INCREASES.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	1881-1891 (10 years).	1891-1901 (10 years).	1901-1911 (10 years).	1911-1921 (10 years).	1921-1933 (12½ years).	1933-1947 (14 years).	1947-1954 (7 years).
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NUMERICAL INCREASE.

New South Wales(a)	377,312	227,709	293,602	453,637	500,476	383,991	438,691
Victoria ..	278,522	60,982	114,481	215,729	288,981	234,440	397,640
Queensland ..	180,193	104,411	107,684	150,159	191,562	158,881	211,844
South Australia ..	39,119	42,813	50,212	86,602	85,789	65,124	151,021
Western Australia ..	20,074	134,342	97,990	50,618	106,120	63,628	137,291
Tasmania ..	30,962	25,808	18,736	22,569	13,819	29,479	51,674
Northern Territory	1,447	- 87	-1,501	557	983	6,018	5,601
Aust. Cap. Terr.(b)	..	..	..	858	6,375	7,958	13,410
Australia ..	927,629	595,978	681,204	980,729	1,194,105	949,519	1,407,172

PROPORTIONAL INCREASE—PER CENT.

New South Wales(a)	50.32	20.20	21.67	27.55	23.83	14.76	14.70
Victoria ..	32.33	5.35	9.53	16.40	18.87	12.88	19.35
Queensland ..	84.39	26.52	21.62	24.79	25.34	16.77	19.15
South Australia ..	14.15	13.57	14.01	21.20	17.33	11.21	23.38
Western Australia ..	67.57	269.86	53.22	17.94	31.89	14.50	27.32
Tasmania ..	26.76	17.60	10.86	11.80	6.46	12.95	20.10
Northern Territory	41.93	-1.78	-31.20	16.83	25.42	124.08	51.54
Aust. Cap. Terr.(b)	..	..	..	50.06	247.86	88.95	79.33
Australia ..	41.22	18.75	18.05	22.01	21.97	14.32	18.57

AVERAGE ANNUAL RATE OF INCREASE—PER CENT.

New South Wales(a)	4.16	1.86	1.97	2.46	1.76	0.99	1.98
Victoria ..	2.84	0.52	0.91	1.53	1.42	0.87	2.56
Queensland ..	6.31	2.38	1.98	2.24	1.86	1.11	2.53
South Australia ..	1.33	1.28	1.32	1.94	1.31	0.76	3.05
Western Australia ..	5.30	13.97	4.36	1.66	2.29	0.97	3.51
Tasmania ..	2.40	1.63	1.04	1.12	0.51	0.87	2.65
Northern Territory	3.56	-0.18	-3.67	1.57	1.87	5.93	6.12
Aust. Cap. Terr.(b)	..	..	..	4.14	10.71	4.65	8.70
Australia ..	3.51	1.73	1.67	2.01	1.63	0.96	2.46

(a) Includes Australian Capital Territory prior to 1911.

(b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes decrease.

§ 3. Growth and Distribution of Population.

1. **Growth of Population.**—The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31st December in 1880 and thereafter at decennial intervals to 1950. Each year from 1954 to 1959 is included in order to show recent growth in greater detail.

ESTIMATED POPULATION: 1880 TO 1959.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

At 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T. (b)	Australia.
MALES.									
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940(c)	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1954	1,738,385	1,246,591	679,012	409,858	334,886	162,801	9,974	16,502	4,598,009
1955	1,770,966	1,288,058	692,920	423,413	345,487	168,994	10,345	17,746	4,714,929
1956	1,802,142	1,328,357	708,246	437,426	353,082	171,151	10,545	19,772	4,830,721
1957	1,837,358	1,360,540	718,166	449,282	360,031	175,887	10,621	20,820	4,932,705
1958	1,865,917	1,394,876	729,148	459,522	366,356	179,818	10,681	22,957	5,029,275
1959	1,895,903	1,431,373	740,622	473,241	372,252	185,162	11,308	26,386	5,136,247

For footnotes see next page.

ESTIMATED POPULATION: 1880 TO 1959—*continued.*

(EXCLUDING FULL-BLOOD ABORIGINALS.)

At 31st Dec.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T. (b)	Australia.
FEMALES.									
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	910	2,659,567
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940(c)	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1954	1,723,928	1,234,286	643,740	398,385	314,529	156,710	6,166	d 14,642	4,492,386
1955	1,754,957	1,266,963	657,764	411,222	325,263	159,807	6,662	d 15,724	4,598,362
1956	1,786,202	1,304,266	670,701	424,486	331,753	161,659	7,308	d 16,238	4,702,613
1957	1,823,139	1,340,095	683,261	436,921	340,183	164,979	7,894	18,294	4,814,766
1958	1,859,769	1,376,043	695,670	448,470	347,227	166,727	8,441	19,996	4,922,343
1959	1,894,367	1,411,530	706,576	461,186	354,237	169,420	9,046	23,564	5,029,926

PERSONS.

1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940(c)	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1954	3,462,313	2,480,877	1,322,752	808,243	649,415	319,511	16,140	d 31,144	9,090,395
1955	3,525,923	2,555,021	1,350,684	834,635	670,750	325,801	17,007	d 33,470	9,313,291
1956	3,588,344	2,632,623	1,378,947	861,912	684,835	332,810	17,853	d 36,010	9,533,334
1957	3,660,497	2,700,635	1,401,427	886,203	700,214	340,866	18,515	39,114	9,747,471
1958	3,725,686	2,770,919	1,424,818	907,992	713,583	346,545	19,122	42,953	9,951,618
1959	3,790,270	2,842,903	1,447,198	934,427	726,489	354,582	20,354	49,950	10,166,173

(a) Northern Territory figures included with South Australia prior to 1900. (b) Part of New South Wales prior to 1911. (c) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (d) Revised estimates based on the June, 1957 Population Count of Canberra are as follows:—1954, males 16,458, females 14,848, persons 31,306; 1955, males 17,615, females 16,345, persons 33,960; 1956, males 19,553, females 17,275, persons 36,828.

Estimates of population for intercensal years are obtained in the manner outlined in § 1.

The estimated population at 31st December each year from 1788 to 1946 on the same basis as in the table above was shown in *Demography*, Bulletin No. 67, 1949 and for the period 1881 to 1958 in *Demography*, Bulletin No. 76. A graph illustrating the growth of the population of Australia and of each State and Territory appears on page 299.

2. **Present Numbers.**—The population of Australia at 31st December, 1959, was estimated at 10,166,173 persons, of whom 5,136,247, or 50.52 per cent., were males and 5,029,926, or 49.48 per cent., were females. The increase during 1959 was 214,555, equal to 2.16 per cent., males having increased by 106,972, or 2.13 per cent., and females by 107,583, or 2.19 per cent. This increase was the result of an excess of births over deaths of 137,764, and a net gain by migration of 76,791 persons.

3. **Proportion of Area and Population, Density and Masculinity.**—The previous table shows the number of persons in each of the States and Territories at 31st December, 1959. In the following table the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population.

DENSITY AND MASCULINITY OF POPULATION, 1959.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Proportion of Total Area. (Per cent.)	Proportion of Estimated Population, 31st December, 1959. (Per cent.)			Density. (a)	Masculinity.(b)
		Males.	Females.	Persons.		
New South Wales	10.42	36.91	37.66	37.28	12.25	100.08
Victoria	2.96	27.87	28.06	27.96	32.35	101.41
Queensland	22.45	14.42	14.05	14.24	2.17	104.82
South Australia	12.79	9.21	9.17	9.19	2.46	102.61
Western Australia	32.85	7.25	7.04	7.15	0.74	105.09
Tasmania	0.88	3.61	3.37	3.49	13.53	109.29
Northern Territory	17.62	0.22	0.18	0.20	0.04	125.01
Australian Capital Territory ..	0.03	0.51	0.47	0.49	53.19	111.98
Australia	100.00	100.00	100.00	100.00	3.42	102.11

(a) Number of persons per square mile.

(b) Number of males per 100 females.

Additional information regarding density and masculinity of population appears in later sections of this chapter.

4. **Urban and Rural Distribution.**—Particulars of the distribution of the population amongst metropolitan urban, other urban and rural areas in each State and Territory are available only from a census. Particulars of the distribution at the 1947 Census were shown in Official Year Book No. 39, pages 521–524.

At the Census of 30th June, 1954, the number of persons and the proportion of the total population of Australia in each division were:—metropolitan urban 4,845,230, 53.92 per cent.; other urban 2,230,039, 24.81 per cent.; rural 1,887,892, 21.01 per cent. migratory population, 23,369, accounted for the remaining 0.26 per cent.

Of the States, Victoria had the largest proportion of population residing in the metropolitan area (62.15 per cent.) but was closely followed in this respect by South Australia (60.66 per cent.). Percentages for the other States were:—Western Australia, 54.50; New South Wales, 54.42; Queensland, 38.10; and Tasmania, 30.84.

A feature of the metropolitan population is its higher femininity as compared with the population of extra-metropolitan areas. In 1933, 52.5 per cent. of the metropolitan population was composed of females; in 1947, the proportion had fallen slightly to 51.9 per cent., being highest in Tasmania at 52.3 per cent; at the Census of 30th June, 1954, the proportion had fallen to 51.0 per cent., there being little difference in the proportions as between the several States. The proportion of females in extra-metropolitan areas was between 46 per cent. and 48 per cent. at each of these three censuses.

Metropolitan Urban Divisions include the capital cities of the States and (included in 1954 for the first time) Canberra, the capital city of Australia, the boundaries of the capital cities being determined for census purposes by the Statisticians of the States in collaboration with the Commonwealth Statistician, and normally include the city proper and all contiguous urban areas. In order to conform to the growth of the metropolitan urban population, the boundaries are reviewed at each census and adjustments made, wherever necessary, to embrace contiguous urban areas that have developed since the previous census. Amendments were made prior to the Census of 1954 to the boundaries of the Metropolitan Urban Divisions in New South Wales, Victoria and Tasmania.

Other Urban Divisions comprise Darwin, the capital city of the Northern Territory, all separately incorporated cities and towns, and all other towns with a population of 1,000 persons or more (750 in Tasmania), outside the Metropolitan Urban Divisions. The inclusion in the Other Urban Divisions in 1954 of the larger towns not separately incorporated was a significant departure from the classification adopted at previous censuses, when these towns (in all States except Tasmania) were included in the Rural Divisions, and the Other Urban Divisions (or Provincial Urban Divisions) were restricted to provincial separately incorporated cities and towns only.

Rural Divisions comprise the remaining portions of each State and Territory, and are affected by the intercensal changes in the areas of the Metropolitan Urban and Other Urban Divisions. As already mentioned, the Rural Divisions in 1954 exclude the towns of 1,000 persons or more (750 in Tasmania) which were not separately incorporated.

The term "Migratory" refers to persons, not elsewhere enumerated, who at midnight between 30th June and 1st July, 1954, were travelling on ships in Australian waters or on long-distance trains or aircraft.

As particulars of the population in urban and rural divisions for the 1947 Census are not directly available on the basis of the 1954 composition of these divisions, adjustments have been made to the 1947 figures in order to provide approximate comparisons with 1954 for the purposes of the following table. Adjustments to 1947 Metropolitan figures have been made in New South Wales, Victoria, Tasmania and the Australian Capital Territory, while in all States and in the Northern Territory adjustments have been made to allow for the transfer of towns of 1,000 persons or more from Rural to Other Urban.

URBAN AND RURAL POPULATION(a): CENSUS, 30th JUNE, 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Division.	1954 Census.			Proportion of Total Population of State. (Per cent.)		Percentage Increase since the 1947 Census.
	Males.	Females.	Persons.	1947 Census.	1954 Census.	
NEW SOUTH WALES.						
Urban—						
Metropolitan	909,978	953,183	1,863,161	55.14	54.42	13.20
Other ..	485,128	480,259	965,387	27.19	28.20	18.94
Rural.. ..	319,562	268,549	588,111	17.42	17.18	13.11
Migratory ..	6,192	678	6,870	0.25	0.20	-6.43
<i>Total ..</i>	<i>1,720,860</i>	<i>1,702,669</i>	<i>3,423,529</i>	<i>100.00</i>	<i>100.00</i>	<i>14.70</i>
VICTORIA.						
Urban—						
Metropolitan	747,712	776,399	1,524,111	62.91	62.15	17.90
Other ..	233,083	236,980	470,063	18.08	19.17	26.52
Rural.. ..	243,809	206,317	450,126	18.82	18.35	16.42
Migratory ..	6,495	1,546	8,041	0.19	0.33	108.80
<i>Total ..</i>	<i>1,231,099</i>	<i>1,221,242</i>	<i>2,452,341</i>	<i>100.00</i>	<i>100.00</i>	<i>19.35</i>
QUEENSLAND.						
Urban—						
Metropolitan	244,904	257,416	502,320	36.34	38.10	24.95
Other ..	230,157	229,923	460,080	34.18	34.90	21.65
Rural.. ..	198,605	154,283	352,888	29.31	26.77	8.82
Migratory ..	2,586	385	2,971	0.17	0.23	57.45
<i>Total ..</i>	<i>676,252</i>	<i>642,007</i>	<i>1,318,259</i>	<i>100.00</i>	<i>100.00</i>	<i>19.15</i>
SOUTH AUSTRALIA.						
Urban—						
Metropolitan	237,651	245,857	483,508	59.20	60.66	26.42
Other ..	55,853	54,254	110,107	13.69	13.81	24.48
Rural.. ..	108,199	92,934	201,133	26.85	25.23	15.95
Migratory ..	2,200	146	2,346	0.26	0.30	37.92
<i>Total ..</i>	<i>403,903</i>	<i>393,191</i>	<i>797,094</i>	<i>100.00</i>	<i>100.00</i>	<i>23.38</i>
WESTERN AUSTRALIA.						
Urban—						
Metropolitan	171,832	176,815	348,647	54.24	54.50	27.93
Other ..	53,868	51,550	105,418	16.68	16.48	25.75
Rural.. ..	102,753	80,686	183,439	28.49	28.67	28.15
Migratory ..	1,905	362	2,267	0.59	0.35	-23.95
<i>Total ..</i>	<i>330,358</i>	<i>309,413</i>	<i>639,771</i>	<i>100.00</i>	<i>100.00</i>	<i>27.32</i>

(a) See letterpress preceding this table for definitions of urban, rural, etc., and for reference to the adjustments to 1947 Census figures in order to provide approximate comparisons on the 1954 Census basis.

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION(a): CENSUS, 30TH JUNE, 1954—continued.

Division.	1954 Census.			Proportion of Total Population of State. (Per cent.)		Percentage Increase since the 1947 Census.
	Males.	Females.	Persons.	1947 Census.	1954 Census.	
TASMANIA.						
Urban—						
Metropolitan	46,544	48,662	95,206	30.19	30.84	22.67
Other ..	53,521	54,607	108,128	33.45	35.02	25.74
Rural.. ..	56,418	48,350	104,768	36.09	33.93	12.93
Migratory ..	646	4	650	0.27	0.21	-7.54
<i>Total ..</i>	<i>157,129</i>	<i>151,623</i>	<i>308,752</i>	<i>100.00</i>	<i>100.00</i>	<i>20.10</i>
NORTHERN TERRITORY.						
Urban—						
Metropolitan	..	..	..	..	..	..
Other ..	6,378	4,478	10,856	65.14	65.92	53.35
Rural.. ..	3,692	1,697	5,389	33.59	32.72	47.60
Migratory ..	218	6	224	1.27	1.36	62.32
<i>Total ..</i>	<i>10,288</i>	<i>6,181</i>	<i>16,469</i>	<i>100.00</i>	<i>100.00</i>	<i>51.54</i>
AUSTRALIAN CAPITAL TERRITORY.						
Urban—						
Metropolitan	15,076	13,201	28,277	89.65	93.28	86.57
Other ..	..	..	..	..	..	..
Rural.. ..	1,153	885	2,038	10.35	6.72	16.52
Migratory ..	..	..	..	..	..	..
<i>Total ..</i>	<i>16,229</i>	<i>14,086</i>	<i>30,315</i>	<i>100.00</i>	<i>100.00</i>	<i>79.33</i>
AUSTRALIA.						
Urban—						
Metropolitan	2,373,697	2,471,533	4,845,230	53.94	53.92	18.51
Other ..	1,117,988	1,112,051	2,230,039	24.10	24.81	22.08
Rural.. ..	1,034,191	853,701	1,887,892	21.71	21.01	14.72
Migratory ..	20,242	3,127	23,369	0.25	0.26	25.62
<i>Total ..</i>	<i>4,546,118</i>	<i>4,440,412</i>	<i>8,986,530</i>	<i>100.00</i>	<i>100.00</i>	<i>18.57</i>

(a) See letterpress preceding this table for definitions of urban, rural, etc., and for reference to the adjustments to 1947 Census figures in order to provide approximate comparisons on the 1954 Census basis.

NOTE.—Minus sign (—) denotes decrease.

5. Capital Cities: Australia and Other Countries.—In Australia there is an abnormal concentration of population in the capital cities. A comparison with the capitals of various other countries is given in the following table.

POPULATION OF CAPITAL CITIES: AUSTRALIA AND OTHER COUNTRIES.
(^{'000.})

State or Country.	Metropolis.	Year.	Metro- politan Popu- lation.	Country.	Metropolis.	Year.	Metro- politan Popu- lation.
New South Wales ..	Sydney ..	1959	2,055	Brazil ..	Rio de Janeiro	1957	2,940
Victoria ..	Melbourne ..	1959	1,778	Czechoslovakia ..	Prague ..	1956	979
Queensland ..	Brisbane ..	1959	(a) 567	Denmark ..	Copenhagen	1955	960
South Australia ..	Adelaide ..	1959	(a) 563	Egypt ..	Cairo ..	1953	2,447
Western Australia ..	Perth ..	1959	(a) 389	France ..	Paris ..	1954	2,850
Tasmania ..	Hobart ..	1959	(a) 109	Germany ..	Berlin ..	1956	3,345
Australian Cap. Ter.	Canberra ..	1959	(a) 44	Greece ..	Athens(c) ..	1951	1,379
England ..	London(b) ..	1958	8,222	Hungary ..	Budapest(d) ..	1956	1,850
Scotland ..	Edinburgh ..	1958	470	Italy ..	Rome ..	1957	1,853
Northern Ireland ..	Belfast ..	1956	445	Japan ..	Tokyo(e) ..	1958	8,775
Ireland, Republic of	Dublin ..	1956	539	Netherlands ..	Amsterdam ..	1957	871
Canada ..	Ottawa ..	1956	345	Norway ..	Oslo ..	1957	455
New Zealand ..	Wellington ..	1957	141	Poland ..	Warsaw ..	1957	1,031
Union of South Africa	Capetown ..	1958	729	Portugal ..	Lisbon ..	1956	835
Argentina ..	Buenos Aires	1958	3,772	Spain ..	Madrid ..	1957	1,849
Belgium ..	Brussels ..	1957	994	Sweden ..	Stockholm ..	1957	799
				U.S.A. ..	Washington	1956	859

(a) Excludes full-blood aboriginals.

(b) Greater London.

(c) Greater Athens, including

Piræus.

(d) Greater Budapest.

(e) Greater Tokyo.

6. **Principal Urban Areas.**—The following table shows the estimated population of the principal urban incorporated areas (population 6,000 or more) in each State and Territory of Australia at 30th June, 1959.

ESTIMATED POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS:
AUSTRALIA.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

City or Town.	Popu- lation.	City or Town.	Popu- lation.	City or Town.	Popu- lation.
New South Wales.		Victoria.		South Australia.	
Sydney and Suburbs(a) ..	2,054,800	Melbourne and Suburbs(a) ..	1,777,700	Adelaide and Suburbs(a) ..	562,500
Newcastle and Suburbs(b) ..	199,080	Geelong and Suburbs(b) ..	88,160	Port Pirie ..	15,200
Greater Wollongong ..	118,090	Ballarat and Suburbs ..	53,680	Mount Gambier ..	13,650
Greater Cessnock ..	38,420	Bendigo and Suburbs ..	41,140	Whyalla ..	9,650
Broken Hill ..	33,420	Warrnambool ..	14,330	Port Augusta ..	9,100
Maitland ..	28,040	Moe ..	13,730	Port Lincoln ..	7,250
Blue Mountains ..	23,870	Shepparton ..	12,820		
Penrith ..	23,670	Wangaratta ..	12,640	Western Australia.	
Wagga Wagga ..	21,250	Mildura ..	12,320	Perth and Suburbs(a) ..	389,000
Goulburn ..	21,010	Hamilton ..	9,510	Kalgoorlie and Suburbs(b) ..	22,850
Orange ..	19,250	Colac ..	9,120	Bunbury ..	12,234
Lismore ..	19,230	Horsham ..	8,950	Geraldton ..	9,830
Albury ..	18,550	Ararat ..	7,970	Albany ..	9,672
Tamworth ..	18,400	Sale ..	7,460	Northam ..	8,128
Bathurst ..	17,060	Maryborough ..	7,410		
Grafton ..	15,400	Benalla ..	7,300	Tasmania.	
Lithgow ..	14,750	Castlemaine ..	7,140	Hobart and Suburbs(a) ..	109,200
Campbelltown ..	14,000	Echuca ..	6,220	Launceston and Suburbs(b) ..	57,120
Dubbo ..	13,370	Swan Hill ..	6,070	Burnie(c) ..	d11,193
Windsor ..	11,370			Devonport(c) ..	d10,597
Taree ..	10,220	Queensland.			
Armidale ..	9,460	Brisbane and Suburbs(a) ..	567,000	Northern Territory.	
Shellharbour ..	8,750	Toowoomba ..	47,700	Darwin(e) ..	8,600
Queanbeyan ..	8,590	Townsville ..	45,000		
Cooma ..	8,560	Rockhampton ..	44,000	Australian Capital Territory.	
Parkes ..	8,460	Ipswich ..	43,200	Canberra(a)(f) ..	43,973
Casino ..	8,360	Gold Coast ..	24,800		
Inverell ..	8,090	Cairns ..	23,800		
Kempsey ..	8,050	Bundaberg ..	22,650		
Forbes ..	6,780	Maryborough ..	19,100		
Muswellbrook ..	6,270	Redcliffe ..	17,500		
Cowra ..	6,190	Mackay ..	15,300		
Moree ..	6,130	Gympie ..	10,550		
Gunnedah ..	6,050	Warwick ..	9,950		
Cootamundra ..	6,040	Gladstone ..	7,350		
		Dalby ..	7,000		
		Charters Towers ..	6,800		

(a) Metropolitan Area.

(b) Entire Urban Area.

(c) Non-municipal town.

(d) Census, 30th June, 1954.

(e) Municipality of Darwin created 28th June, 1957.

(f) June, 1959, Population count of Canberra.

7. **Urban Areas Outside Metropolitan Areas.**—The proportion of the total population of each State which was located in incorporated urban provincial areas at the 1933 and 1947 Censuses was shown in Official Year Book No. 39, pages 522–3. In Official Year Book No. 40, page 334, a table was given showing aggregate population at the 1947 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more and 3,000 or more inhabitants, irrespective of whether such centres were incorporated separately or not. In addition, the proportion of the aggregate population of these cities and towns to the total population of the State was shown. The following table shows similar particulars for the 1954 Census.

**AGGREGATE POPULATION OF CITIES AND TOWNS OF SPECIFIED SIZE:
CENSUS, 30th JUNE, 1954.**

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Cities and Towns outside Metropolitan Area with Population of—					
	2,000 and over.			3,000 and over.		
	Number.	Population.	Proportion of Total Population.	Number.	Population.	Proportion of Total Population.
			%			%
New South Wales(a) ..	98	881,391	25.75	67	806,373	23.55
Victoria	56	415,690	16.95	40	376,347	15.35
Queensland	41	404,520	30.69	29	374,328	28.40
South Australia ..	14	74,502	9.35	9	62,008	7.78
Western Australia(b) ..	13	82,139	12.84	7	67,440	10.54
Tasmania	8	89,003	28.83	6	84,312	27.31
Northern Territory ..	2	10,856	65.92	1	8,071	49.01
Australian Capital Territory (c) .. ..	..	..	..	..	..	..
Total	232	1,958,401	21.79	159	1,778,879	19.79

(a) Excludes that part of Liverpool Municipality outside the Metropolitan Area of Sydney.

(b) Excludes that part of Fremantle suburbs outside the Metropolitan Area of Perth. (c) The only city or town is Canberra, the capital city of Australia, classed as metropolitan.

In the foregoing table, "Urban Areas" comprising two or more Local Government Areas or portions thereof are treated as units. The "Urban Areas" so treated are: in New South Wales, Newcastle; in Victoria, Ballarat, Bendigo, and Geelong; in Western Australia, Kalgoorlie; and in Tasmania, Launceston. The figures in each instance include the populations of the adjoining areas which, together with the city proper, constitute the entire "Urban Area".

The numbers of towns of 2,000 or more inhabitants in New South Wales and Victoria, and of 3,000 or more in New South Wales, show considerable decreases as compared with the figures for the 1947 Census. This is due to the absorption, by the increased metropolitan areas, of towns within these ranges which were formerly outside the metropolitan limits, and, in New South Wales, to similar absorptions by the City of Blue Mountains, Greater Wollongong and Newcastle Urban Area.

8. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available date:—

POPULATION OF THE WORLD'S LARGEST CITIES.

(Details for Commonwealth countries are printed in italics.)

City.	Country.	Year.	City Population ('000).	City.	Country.	Year.	City Population ('000).
Tokyo(a) ..	Japan ..	1955	8,775	Canton ..	China ..	1950	1,496
London(b) ..	<i>England</i> ..	1958	8,222	Barcelona ..	Spain ..	1957	1,429
New York ..	U.S.A. ..	1957	7,795	Nagoya ..	Japan ..	1957	1,387
Shanghai ..	China ..	1953	6,204	Athens(e) ..	Greece ..	1951	1,379
Moscow ..	U.S.S.R. ..	1956	4,847	Milan ..	Italy ..	1957	1,370
Buenos Aires ..	Argentina ..	1958	3,772	Toronto(f) ..	<i>Canada</i> ..	1956	1,358
Chicago ..	U.S.A. ..	1950	3,621	Bucharest ..	Romania ..	1956	1,237
Berlin ..	Germany ..	1956	3,345	Istanbul ..	Turkey ..	1955	1,215
Bombay ..	<i>India</i> ..	1954	3,211	Kyoto ..	Japan ..	1957	1,210
Leningrad(c) ..	U.S.S.R. ..	1956	3,182	Bangkok ..	Thailand ..	1956	1,209
Sao Paulo ..	Brazil ..	1957	3,150	Yokohama ..	Japan ..	1955	1,144
Rio de Janeiro ..	Brazil ..	1957	2,940	Manila ..	Philippines ..	1955	1,118
Calcutta ..	<i>India</i> ..	1958	2,931	Birmingham ..	<i>England</i> ..	1956	1,111
Paris ..	France ..	1954	2,850	Naples ..	Italy ..	1957	1,105
Peking ..	China ..	1953	2,768	Alexandria ..	Egypt ..	1953	1,105
Tientsin ..	China ..	1953	2,694	Lima(g) ..	Peru ..	1956	1,086
Osaka ..	Japan ..	1957	2,632	Glasgow ..	<i>Scotland</i> ..	1956	1,082
Mexico City ..	Mexico ..	1954	2,554	Lu-ta ..	China ..	1950	1,054
Cairo ..	Egypt ..	1953	2,447	Johannesburg ..	<i>South Africa</i> ..	1958	1,053
Los Angeles ..	U.S.A. ..	1956	2,244	Pusan ..	Korea, South ..	1955	1,049
Philadelphia ..	U.S.A. ..	1950	2,072	Chungking ..	China ..	1950	1,039
Sydney and Suburbs ..	<i>Australia</i> ..	1959	2,055	Warsaw ..	Poland ..	1957	1,031
Djakarta ..	Indonesia ..	1956	1,892	Nanking ..	China ..	1950	1,020
Rome ..	Italy ..	1957	1,853	Karachi ..	<i>Pakistan</i> ..	1951	1,009
Detroit ..	U.S.A. ..	1950	1,850	Wuhan ..	China ..	1950	1,008
Budapest ..	Hungary ..	1956	1,850	Victoria ..	<i>Hong Kong</i> ..	1956	1,000
Madrid ..	Spain ..	1957	1,849	Brussels(h) ..	Belgium ..	1957	994
Hamburg ..	Germany ..	1958	1,799	Kiev ..	U.S.S.R. ..	1956	991
Saigon-Cholon ..	Viet-Nam, Sth. ..	1956	1,794	Kobe ..	Japan ..	1955	979
Melbourne and Suburbs ..	<i>Australia</i> ..	1959	1,778	Prague ..	Czechoslovakia ..	1956	979
Vienna ..	Austria ..	1956	1,623	Munich ..	Germany ..	1956	975
Montreal(d) ..	<i>Canada</i> ..	1956	1,621	Caracas ..	Venezuela ..	1955	972
Madras ..	<i>India</i> ..	1954	1,596	Copenhagen ..	Denmark ..	1955	960
Seoul ..	Korea, South ..	1955	1,575	Surabaya ..	Indonesia ..	1956	950
Shenyang ..	China ..	1950	1,551	Baltimore ..	U.S.A. ..	1950	950
Santiago ..	Chile ..	1954	1,547	Delhi ..	India ..	1951	915
Teheran ..	Iran ..	1956	1,513	Cleveland ..	U.S.A. ..	1950	913
				Bogota ..	Colombia ..	1955	903
				Singapore ..	<i>Singapore</i> ..	1956	897

(a) Greater Tokyo. (b) Greater London. (c) Greater Leningrad. (d) Greater Montreal. (e) Greater Athens. (f) Greater Toronto. (g) Greater Lima. (h) Includes Shaerboek.

§ 4. Mean Population.

1. **General.**—Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods.

2. **Method of Calculation.**—From 1901 onwards the mean population for any year has been calculated by the formula:—

$$\text{Mean Population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where a , b , c , d and e , respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g., in the case of a calendar year, 31st December of the preceding year and 31st March, 30th June, 30th September and 31st December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values a , b , c , d , e .

3. Results.—(i) *Calendar Years.* The following table shows the mean population of each State and Territory for the calendar years 1950 to 1959:—

MEAN POPULATION: CALENDAR YEARS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1950 ..	3,193,208	2,209,013	1,191,081	709,475	557,878	278,785	14,309	23,545	8,177,294
1951 ..	3,279,415	2,276,272	1,223,719	732,537	580,317	288,294	15,179	24,658	8,420,391
1952 ..	3,341,476	2,343,610	1,255,896	755,042	600,615	298,361	15,087	26,570	8,636,657
1953 ..	3,386,556	2,395,851	1,287,231	776,355	621,034	306,318	15,534	28,724	8,817,603
1954 ..	3,428,488	2,453,458	1,313,055	796,361	640,140	311,128	16,214	a 30,383	8,989,227
1955 ..	3,492,385	2,526,275	1,338,995	820,143	658,747	316,153	17,040	a 32,412	9,202,150
1956 ..	3,555,854	2,604,283	1,366,496	848,531	677,317	322,216	17,896	a 34,698	9,427,291
1957 ..	3,622,557	2,673,654	1,392,384	874,159	691,723	330,200	18,730	a 37,631	9,641,038
1958 ..	3,693,282	2,740,286	1,414,362	896,933	705,600	337,735	19,226	41,110	9,848,534
1959 ..	3,758,881	2,812,563	1,437,230	921,042	718,830	344,363	20,476	46,618	10,060,003

(a) Revised estimates based on the June, 1957 Population Count of Canberra are as follows:—1954, 30,424; 1955, 32,738; 1956, 35,352; 1957, 37,999.

(ii) *Financial Years.* The following table shows the mean population of each State and Territory for the years ended 30th June, 1950 to 1959:—

MEAN POPULATION: FINANCIAL YEARS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1950 ..	3,145,699	2,174,844	1,173,232	694,582	545,134	274,493	13,737	22,571	8,044,292
1951 ..	3,238,406	2,242,882	1,207,194	721,845	570,346	283,526	14,827	24,017	8,303,043
1952 ..	3,311,840	2,309,708	1,239,868	743,310	589,887	293,340	15,131	25,545	8,528,629
1953 ..	3,366,358	2,372,366	1,272,244	766,538	611,191	302,529	15,241	27,721	8,734,188
1954 ..	3,405,414	2,422,839	1,300,464	785,981	630,705	309,416	15,930	29,595	8,900,344
1955 ..	3,459,538	2,488,115	1,325,336	807,501	648,930	312,987	16,536	a 31,249	9,090,192
1956 ..	3,524,379	2,564,849	1,352,629	834,465	669,040	319,192	17,474	a 33,642	9,315,670
1957 ..	3,588,033	2,640,105	1,380,466	861,373	684,518	326,137	18,340	a 36,013	9,534,985
1958 ..	3,658,325	2,707,192	1,403,279	885,973	698,548	334,105	19,033	39,283	9,745,738
1959 ..	3,725,916	2,775,750	1,426,019	908,294	712,257	341,274	19,674	43,429	9,952,613

(a) Revised estimates based on the June, 1957 Population Count of Canberra are as follows:—1955, 31,411; 1956, 34,132; 1957, 36,749.

§ 5. Elements of Increase.

1. *Natural Increase.*—(i) *General.* The two factors which contribute to the growth of a population are the "natural increase", i.e., the excess of births over deaths, and the "net migration", i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book, particulars of the natural increase from 1861 were given for each sex and for each State and Territory (see No. 22, p. 899). Figures for more recent years will be found in *Demography*, Bulletin No. 76.

During the present century, the rate of natural increase grew until it reached its maximum at a rate of 17.44 per thousand of mean population in 1914, but it steadily declined after that year to 7.07 in 1934. There was little change until 1939, but during the war and in the post-war period the rate rose sharply, reaching 14.37 in 1947. In 1959 the rate was 13.69.

In the following table particulars of the natural increase in each State and Territory are given for each sex for each five-year period from 1926 to 1955 and for each of the years 1955 to 1959.

POPULATION: NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS).
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1926-30 ..	72,430	43,756	25,645	14,583	11,245	7,001	-131	175	174,704
1931-35 ..	51,566	25,286	20,627	8,686	8,576	5,810	-93	270	120,728
1936-40(a)	49,092	26,141	23,145	9,187	9,409	6,040	39	397	123,450
1941-45(a)	68,071	42,650	31,871	15,563	12,391	7,234	15	740	178,535
1946-50(a)	93,564	63,984	41,580	24,206	19,367	11,356	412	1,583	256,052
1951-55 ..	97,898	76,291	46,700	26,672	24,658	12,767	767	1,932	287,685
1955 ..	19,411	16,902	10,020	5,313	5,330	2,771	158	357	60,262
1956 ..	20,043	17,253	9,623	5,465	5,605	2,750	201	457	61,397
1957 ..	22,145	17,884	10,416	5,924	5,612	2,851	252	494	65,578
1958 ..	22,530	18,738	10,714	5,919	5,262	2,915	260	569	66,907
1959 ..	21,459	18,311	11,019	5,900	5,486	2,870	306	597	65,948
FEMALES.									
1926-30 ..	80,733	44,417	31,128	15,407	14,406	6,893	126	203	193,313
1931-35 ..	60,300	28,216	26,036	9,228	12,352	5,953	156	280	142,521
1936-40(a)	60,628	28,464	28,991	10,057	13,626	6,574	220	437	148,997
1941-45(a)	75,809	42,538	36,709	15,654	16,029	7,420	232	826	195,217
1946-50(a)	102,959	63,744	46,650	24,605	22,273	11,667	652	1,574	274,124
1951-55 ..	110,115	78,058	52,282	27,641	27,650	13,219	1,029	2,023	312,017
1955 ..	22,443	16,907	11,025	5,645	5,914	2,829	238	378	65,379
1956 ..	21,607	17,254	10,600	5,906	5,739	2,841	248	453	64,648
1957 ..	23,994	18,449	11,668	6,036	6,015	2,914	279	472	69,827
1958 ..	25,165	18,906	11,703	6,385	5,915	2,945	331	524	71,874
1959 ..	24,158	18,856	12,231	6,529	6,128	2,975	366	573	71,816
PERSONS.									
1926-30 ..	153,163	88,173	56,773	29,990	25,651	13,894	-5	378	368,017
1931-35 ..	111,866	53,502	46,663	17,914	20,928	11,763	63	550	263,249
1936-40(a)	109,720	54,605	52,136	19,244	23,035	12,614	259	834	272,447
1941-45(a)	143,880	85,188	68,580	31,217	28,420	14,654	247	1,566	373,752
1946-50(a)	196,523	127,728	88,230	48,811	41,640	23,023	1,064	3,157	530,176
1951-55 ..	208,013	154,349	98,982	54,313	52,308	25,986	1,796	3,955	599,702
1955 ..	41,854	33,809	21,045	10,958	11,244	5,600	396	735	125,641
1956 ..	41,650	34,507	20,223	11,371	11,344	5,591	449	910	126,045
1957 ..	46,139	36,333	22,084	11,960	11,627	5,765	531	966	135,405
1958 ..	47,695	37,644	22,417	12,304	11,177	5,860	591	1,093	138,781
1959 ..	45,617	37,167	23,250	12,429	11,614	5,845	672	1,170	137,764

For footnotes see next page.

NOTE.—Minus sign (—) denotes excess of deaths over births.

POPULATION: NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS)—
continued.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
RATE OF NATURAL INCREASE(b)—PERSONS.									
1926-30 ..	12.51	10.10	12.84	10.58	12.63	12.85	-0.22	9.60	11.72
1931-35 ..	8.61	5.89	9.88	6.17	9.54	10.33	2.54	11.96	7.95
1936-40(c)	8.06	5.84	10.40	6.48	9.94	10.66	8.27	14.14	7.89
1941-45(c)	10.05	8.64	13.04	10.17	11.86	12.02	4.97	21.85	10.32
1946-50(c)	12.90	12.14	15.56	14.64	16.01	17.41	17.50	32.61	13.65
1951-55 ..	12.29	12.87	15.42	14.00	16.87	17.09	22.72	27.71	13.61
1955 ..	11.98	13.38	15.72	13.36	17.07	17.71	23.24	d22.68	13.65
1956 ..	11.71	13.25	14.80	13.40	16.75	17.35	25.09	d26.23	13.37
1957 ..	12.74	13.59	15.86	13.68	16.81	17.46	28.35	d25.67	14.04
1958 ..	12.91	13.74	15.85	13.72	15.84	17.35	30.74	26.59	14.09
1959 ..	12.14	13.21	16.18	13.49	16.16	16.97	32.82	25.10	13.69

(a) Excess of births over civilian deaths from September, 1939 to June, 1947. (b) Excess of, births over deaths per 1,000 of mean population. (c) Excess of births over civilian deaths per 1,000 of mean population from September, 1939 to June, 1947. (d) Rates based on the revised estimates of mean population for the Australian Capital Territory consequent on the June, 1957, Population Count of Canberra are as follows:—1955, 22.45; 1956, 25.74; 1957, 25.42.

NOTE.—Minus sign (—) denotes excess of deaths over births.

During the first five years of the present century, the average annual increment to the population of Australia by natural increase was 56,886 persons. The increment rose to 81,695 persons a year in 1921-25, but thereafter fell to 52,650 in the five years 1931-35. During 1941-45, the average annual excess of births over civilian deaths was 74,750, while during 1951-55 the annual excess of births over deaths was a record high average of 119,940. The excess for the year 1959 was 137,764.

A graph showing the rate of natural increase for each year from 1860 to 1959 will be found on page 336.

(ii) *Comparison with other Countries.* Australia has a higher rate of natural increase than most European countries, owing to the fact that it has both a higher birth rate and a lower death rate. The following table gives a comparison between the rate of natural increase in Australia and that in some of the principal countries for which such information is available.

NATURAL INCREASE OF POPULATION: VARIOUS COUNTRIES.

ANNUAL INCREASE PER 1,000 OF MID-YEAR POPULATION.

Country.	1941-45.	1946-50.	1951-55.	1958.	Country.	1941-45.	1946-50.	1951-55.	1958.
Mexico ..	23.2	27.7	30.4	32.0	Japan ..	9.9	17.6	13.2	10.5
Ceylon ..	17.1	25.1	27.3	a26.7	Finland ..	5.7	15.2	12.6	9.6
Egypt ..	12.7	21.4	b24.8	c22.8	Norway ..	8.0	11.4	10.2	9.2
Israel ..	19.0	23.1	24.2	20.6	Ireland, Republic of	10.0	8.9	8.8	8.9
Canada ..	13.7	18.1	19.6	19.7	Italy ..	5.2	10.6	8.2	8.5
Union of S. Africa (d)	16.2	17.6	16.5	16.8	Switzerland ..	7.5	8.1	7.0	8.1
New Zealand (e)	11.7	16.1	15.0	16.3	Denmark ..	11.2	11.4	8.7	7.4
U.S.A. ..	9.6	14.2	15.1	14.8	France ..	-1.9	7.9	6.4	7.0
Argentina ..	13.8	15.6	15.8	14.6	Germany(g)	(h)	5.6	5.0	6.2
Australia(f)	10.3	13.7	13.6	14.1	United Kingdom	3.3	6.5	4.0	5.1
Netherlands ..	10.9	18.0	14.4	13.6	Belgium ..	-0.5	4.6	4.4	4.9
Spain ..	7.3	10.0	10.5	13.2	Austria ..	1.2	4.0	2.8	4.7
Portugal ..	9.0	11.8	12.2	12.9	Sweden ..	8.1	8.0	5.5	4.6

(a) 1957. (b) 1951-53. (c) 1954. (d) Whites only. (e) Excludes Maoris. (f) Excludes full-blood aboriginals. (g) Federal Republic. (h) Not available.

NOTE.—Minus sign (—) denotes decrease.

2. **Recorded Net Interstate and Oversea Migration.***—The other factor of increase in the population, namely, the excess of arrivals over departures, known as "net migration", is, from its nature, much more subject to variation than is "natural increase".

Particulars of the increase by net migration are given below for five-year periods from 1926 to 1955 and for each of the years 1955 to 1959.

POPULATION: INCREASE BY RECORDED NET INTERSTATE AND OVERSEA MIGRATION.(a)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1926-30 ..	37,524	7,849	11,584	- 2,230	19,069	- 3,668	870	2,259	73,257
1931-35 ..	- 1,646	- 5,951	6,195	- 3,654	- 4,215	- 1,384	24	3	-10,676
1936-40(b)	7,847	12,096	5,249	- 4,988	- 2,501	- 793	2,787	1,176	20,873
1941-45(b)(c)	6,614	17,502	- 6,487	2,202	- 9,261	- 4,312	889	- 1,822	5,325
1946-50(b)(c)	84,834	58,331	15,038	18,531	23,299	13,178	1,852	2,665	217,728
1951-55 ..	58,092	99,072	18,990	22,681	26,320	9,500	267	5,559	240,481
1955 ..	13,170	24,565	3,888	8,242	5,271	422	213(d)	887	56,658
1956 ..	11,133	23,046	5,703	8,548	1,990	2,407	1(d)	1,569	54,395
1957 ..	13,071	14,299	- 496	5,932	1,337	1,885	- 176(d)	554	36,406
1958 ..	6,029	15,598	268	4,321	1,063	1,016	- 200	1,568	29,663
1959 ..	8,527	18,186	455	7,819	410	2,474	321	2,832	41,024
FEMALES.									
1926-30 ..	33,326	12,532	3,537	- 341	9,363	- 4,293	278	2,048	56,450
1931-35 ..	1,093	2,943	1,125	- 2,284	- 578	- 2,644	88	47	- 1,210
1936-40(b)	14,414	9,409	1,509	- 2,608	32	- 1,872	715	656	22,255
1941-45(b)(c)	3,648	10,745	- 4,759	786	- 3,654	- 3,701	357	- 938	2,484
1946-50(b)(c)	53,087	30,124	10,233	13,464	17,552	7,708	1,643	1,545	135,356
1951-55 ..	43,272	57,924	20,649	23,924	20,359	4,061	1,226	1,928	173,343
1955 ..	8,586	15,770	2,999	7,192	4,820	268	258(d)	704	40,597
1956 ..	9,638	20,049	2,337	7,358	751	- 989	398(d)	61	39,603
1957 ..	12,943	17,380	892	6,399	2,415	406	307(d)	1,584	42,326
1958 ..	11,465	17,042	706	5,164	1,129	- 1,197	216	1,178	35,703
1959 ..	10,440	16,631	- 1,325	6,187	882	- 282	239	2,995	35,767
PERSONS.									
1926-30 ..	70,850	20,381	15,121	- 2,571	28,432	- 7,961	1,148	4,307	129,707
1931-35 ..	- 553	- 3,008	7,320	- 5,938	- 4,793	- 4,028	64	50	-10,886
1936-40(b)	22,261	21,505	6,758	- 7,596	- 2,469	- 2,665	3,502	1,832	43,128
1941-45(b)(c)	10,262	28,247	- 11,246	2,988	- 12,915	- 8,013	1,246	- 2,760	7,809
1946-50(b)(c)	137,921	88,455	25,271	31,995	40,851	20,886	3,495	4,210	353,084
1951-55 ..	101,364	156,996	39,639	46,605	46,679	13,561	1,493	7,487	413,824
1955 ..	21,756	40,335	6,887	15,434	10,091	690	471(d)	1,591	97,255
1956 ..	20,771	43,095	8,040	15,906	2,741	1,418	397(d)	1,630	93,998
1957 ..	26,014	31,679	396	12,331	3,752	2,291	131(d)	2,138	78,732
1958 ..	17,494	32,640	974	9,485	2,192	- 181	16	2,746	65,366
1959 ..	18,967	34,817	- 870	14,006	1,292	2,192	560	5,827	76,791

(a) Excess of arrivals over departures. Interstate migration relates to recorded movements by rail, sea and air and to certain special movements by road, together with an allowance for unrecorded movement into the Australian Capital Territory. (b) Excludes troop movements from September, 1939 to June, 1947. (c) Excludes interstate migration from July, 1943 to June, 1947. (d) Revised figures of net migration consequent on the June, 1957 Population Count of Canberra are as follows:—1955, males 800, females 1,119, persons 1,919; 1956, males 1,481, females 477, persons 1,958; 1957, males 773, females 547, persons 1,320.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

* The subject of overseas migration is dealt with at some length later in this chapter (see p. 315).

In the five years ended 1935, there was a net emigration of 10,886 and, in the five years ended 1940, a net immigration of 43,128. During the war period 1941-45 net immigration fell to 7,809 persons. In 1946, there was a net loss by migration of 15,148 persons, due mainly to the departure of refugees and evacuees, and also fiancées, wives and children of British and Allied servicemen but with increasing transport facilities and the resumption of assisted migration there was a net gain of 10,611 in 1947, which increased rapidly to 55,115 in 1948, 150,001 in 1949 and 152,505 in 1950. This large net gain was due in great measure to the arrival of successive contingents from Australia's quota of 176,000 former European displaced persons, of whom 156,491 had arrived by the end of 1950. As this flow diminished, it was partly offset by new schemes for assisted migrants, but by 1953, the total net gain from all sources during the year had fallen to 42,897. Since then it has risen, being 65,366 in 1958 and 76,791 in 1959. The net gains in each of the years 1949 to 1952 were the highest recorded for individual years with the exception of 1919, for which year troops returning from the 1914-18 War were included.

3. **Total Increase.**—The total increase of the population is obtained by combining the natural increase with the increase by net migration. For the period September, 1939, to June, 1947, deaths of defence personnel have been deducted from the total increase so derived. The results of the 1947 and 1954 Censuses disclosed some unrecorded movements of population during the intercensal periods, July, 1933, to June, 1947, and July, 1947, to June, 1954, and particulars of total increase, after taking into account deaths of defence personnel in the earlier period, have been adjusted for these discrepancies. However, no separate adjustment has been applied to individual elements of increase during the periods, although intercensal discrepancies disclosed by previous censuses were adjusted on recorded overseas departures.

The annual increments to the population for the years 1955 to 1959 are shown below together with the increases for each five years from 1926 to 1955. For the reasons stated in the previous paragraph, figures for the period 1933 to 1954 differ from the totals of figures for natural increase and net migration shown in preceding tables by an amount equal to the net total of deaths of defence personnel and unrecorded movements of population disclosed by the Censuses of 1947 and 1954.

POPULATION: TOTAL INCREASE.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1926-30 ..	109,954	51,605	37,229	12,353	30,314	3,333	739	2,434	247,961
1931-35 ..	50,277	18,318	26,789	5,049	5,871	4,619	—	109	502
1936-40(a) ..	57,601	36,297	28,364	4,218	9,995	5,526	2,847	2,622	147,470
1941-45(a)(b)	62,389	47,747	20,117	14,703	2,856	2,204	915	427	151,358
1946-50(a)(b)	162,932	119,713	63,500	52,117	43,168	21,249	2,162	4,738	469,579
1951-55 ..	143,348	173,561	72,591	58,708	50,729	18,891	931	4,725	523,484
1955 ..	32,581	41,467	13,908	13,555	10,601	3,193	371	(c) 1,244	116,920
1956 ..	31,176	40,299	15,326	14,013	7,595	5,157	200	(c) 2,026	115,792
1957 ..	35,216	32,183	9,920	11,856	6,949	4,736	76	(c) 1,048	101,984
1958 ..	28,559	34,336	10,982	10,240	6,325	3,931	60	2,137	96,570
1959 ..	29,986	36,497	11,474	13,719	5,896	5,344	627	3,429	106,972
FEMALES.									
1926-30 ..	114,059	56,949	34,665	15,066	2,3769	2,600	404	2,251	249,763
1931-35 ..	61,442	30,672	27,772	7,246	12,142	3,507	275	539	143,595
1936-40(a) ..	75,275	37,026	31,791	8,076	14,458	5,053	997	1,778	174,454
1941-45(a)(b)	79,661	52,442	33,295	17,123	13,156	4,074	657	845	201,253
1946-50(a)(b)	145,127	102,362	57,054	39,844	39,393	18,804	1,712	3,409	407,705
1951-55 ..	141,518	144,278	72,675	53,084	47,372	16,577	1,656	5,166	482,326
1955 ..	31,029	32,677	14,024	12,837	10,734	3,097	496	(c) 1,082	105,976
1956 ..	31,245	37,303	12,937	13,264	6,490	1,852	646	(c) 514	104,251
1957 ..	36,937	35,829	12,560	12,435	8,430	3,320	586	(c) 2,056	112,153
1958 ..	36,630	35,948	12,409	11,549	7,044	1,748	547	1,702	107,577
1959 ..	34,598	35,487	10,906	12,716	7,010	2,693	605	3,568	107,583

For footnotes see next page.

NOTE.—Minus sign (—) denotes decrease.

POPULATION: TOTAL INCREASE—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
PERSONS.									
1926-30 ..	224,013	108,554	71,894	27,419	54,083	5,933	1,143	4,685	497,724
1931-35 ..	111,719	48,990	54,561	12,295	18,013	8,126	166	1,041	254,911
1936-40(a) ..	132,876	73,323	60,155	12,294	24,453	10,579	3,844	4,400	321,924
1941-45(a)(b)	142,050	100,189	53,412	31,826	16,012	6,278	1,572	1,272	352,611
1946-50(a)(b)	308,059	222,075	120,554	91,961	82,561	40,053	3,874	8,147	877,284
1951-55 ..	284,866	317,839	145,266	111,792	98,101	35,468	2,587	9,891	1,005,810
1955 ..	63,610	74,144	27,932	26,392	21,335	6,290	867	(c) 2,326	222,896
1956 ..	62,421	77,602	28,263	27,277	14,085	7,009	846	(c) 2,540	220,043
1957 ..	72,153	68,012	22,480	24,291	15,379	8,056	662	(c) 3,104	214,137
1958 ..	65,189	70,284	23,391	21,789	13,369	5,679	607	3,839	204,147
1959 ..	64,584	71,984	22,380	26,435	12,906	8,037	1,232	6,997	214,555

(a) Includes recorded deaths of defence personnel, whether inside or outside Australia, from September, 1939 to June, 1947. (b) Excludes interstate migration from July, 1943 to June, 1947. (c) Revised figures based on the June, 1957 Population Count of Canberra are as follows:—1955, males, 1,157, females 1,497, persons 2,654; 1956, males 1,938, females 930, persons 2,868; 1957, males 1,267, females 1,019, persons 2,286.

4. Rate of Population Growth.—(i) *Australia.* The annual percentage rate of population growth is computed by the compound interest formula. The formula is as follows:—

$$P_1 = P_0 (1+r)^t$$

where P_0 and P_1 are the populations at the beginning and end of the period respectively, t is the number of years intervening and r is the annual rate of growth.

The annual rates of growth per cent., of population in Australia during each of the years 1950 to 1959 were as follows:—1950, 3.26; 1951, 2.65; 1952, 2.48; 1953, 1.87; 1954, 2.11; 1955, 2.45; 1956, 2.36; 1957, 2.25; 1958, 2.09; and 1959, 2.16.

The annual rate of population growth during the present century has been 1.69 per cent., but the results from year to year have deviated widely from this figure. In the following table the period 31st December, 1900 to 31st December, 1959 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population:—

POPULATION: PERIODICAL RATES OF GROWTH.

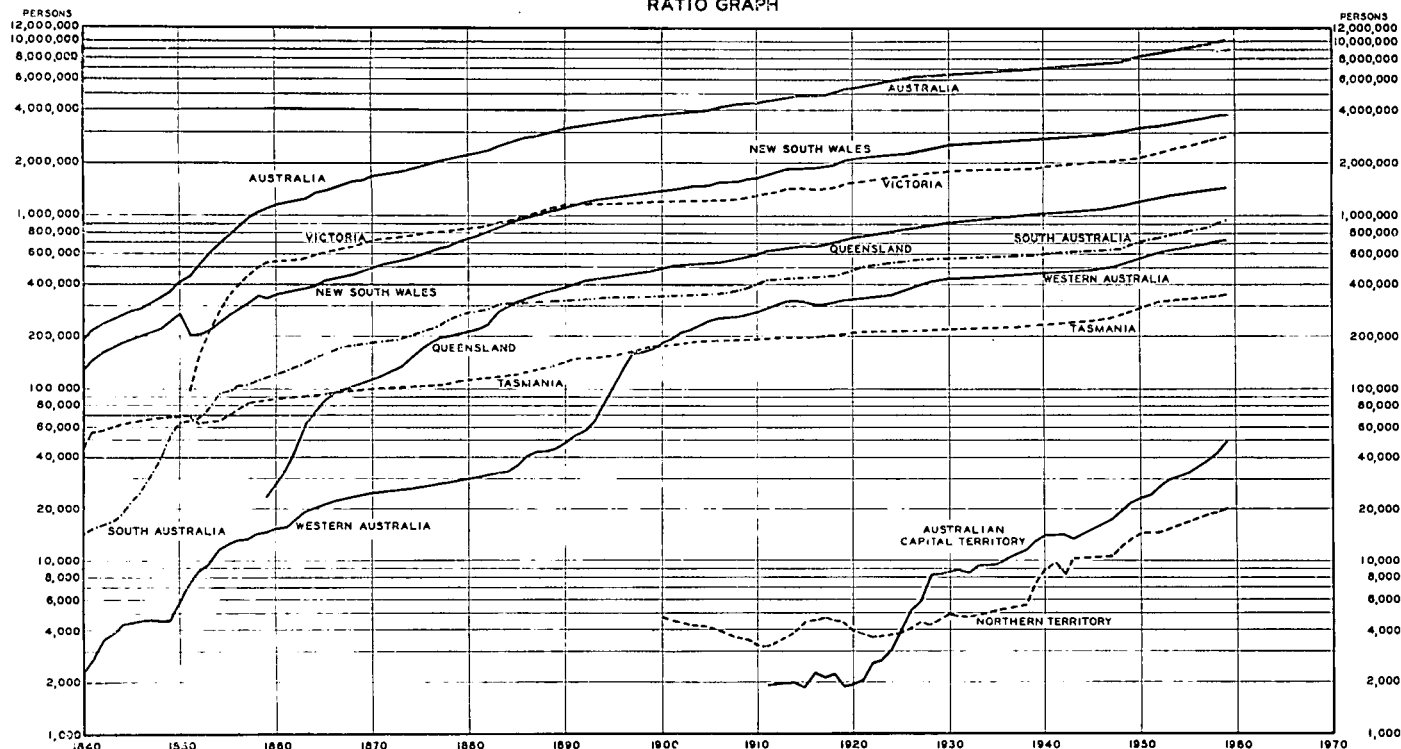
Period.	Interval. (Years.)	Total Increase. (‘000.)	Average Annual Numerical Increase. (‘000.)	Annual Rate of Population Growth. (Per cent.)		
				Natural Increase.	Net Migration.	Total.
1901 to 1913 ..	13	1,128	87	1.59	0.53	2.04
1914 to 1923 ..	10	862	86	1.50	0.15	1.64
1924 to 1929 ..	6	680	113	1.28	0.64	1.88
1930 to 1939(a) ..	10	569	57	0.82	0.03	0.85
1940 to 1946(a) ..	7	513	73	1.05	0.01	1.01
1947 to 1959(a) ..	13	2,648	204	1.47	1.05	2.35

(a) For the period September, 1939 to June, 1947, overseas movements of Australian defence forces have been excluded and deaths of members of these forces, whether occurring in Australia or overseas, have been included.

Up to 1913, the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards by increased governmental assistance, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The 1914-18 War was a dominating influence in the decade 1914-23, and its effects can be

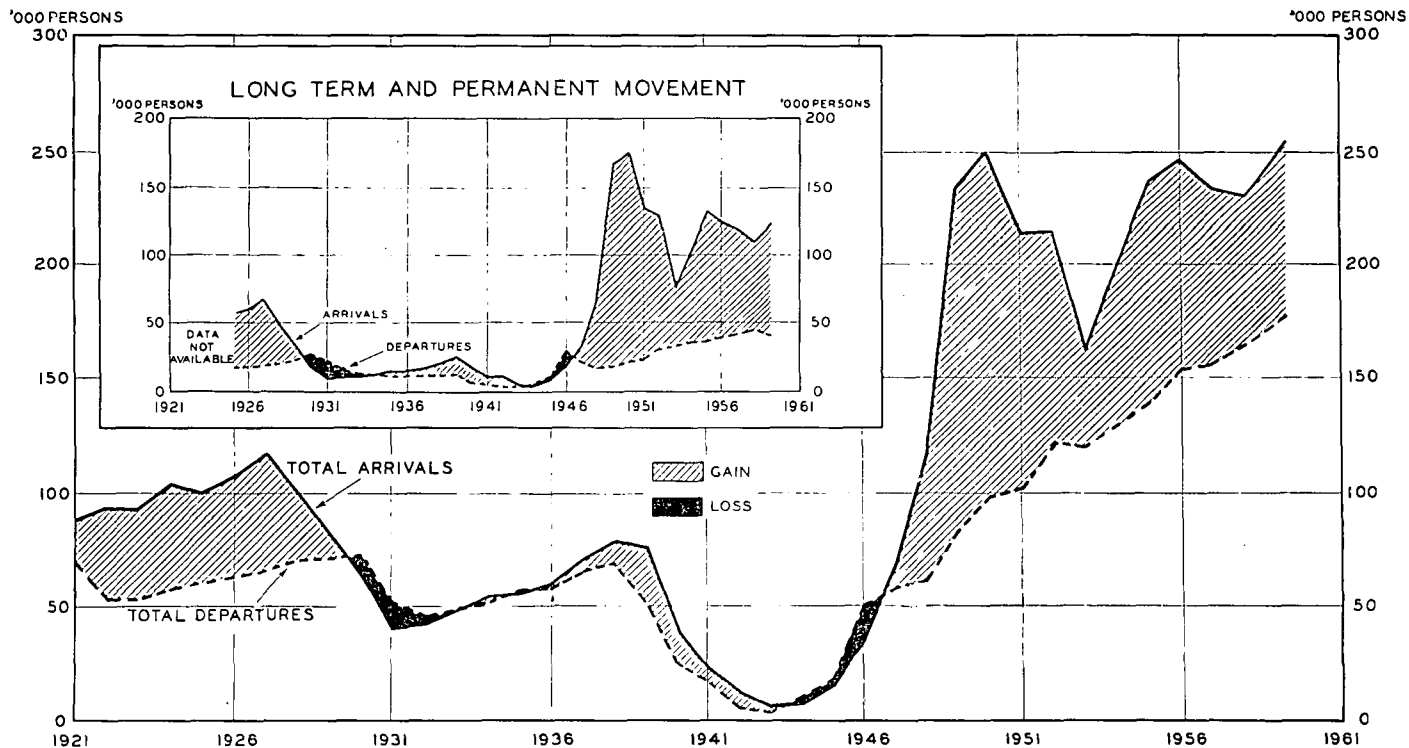
POPULATION OF AUSTRALIA, 1840 to 1959

RATIO GRAPH



OVERSEA ARRIVALS AND DEPARTURES

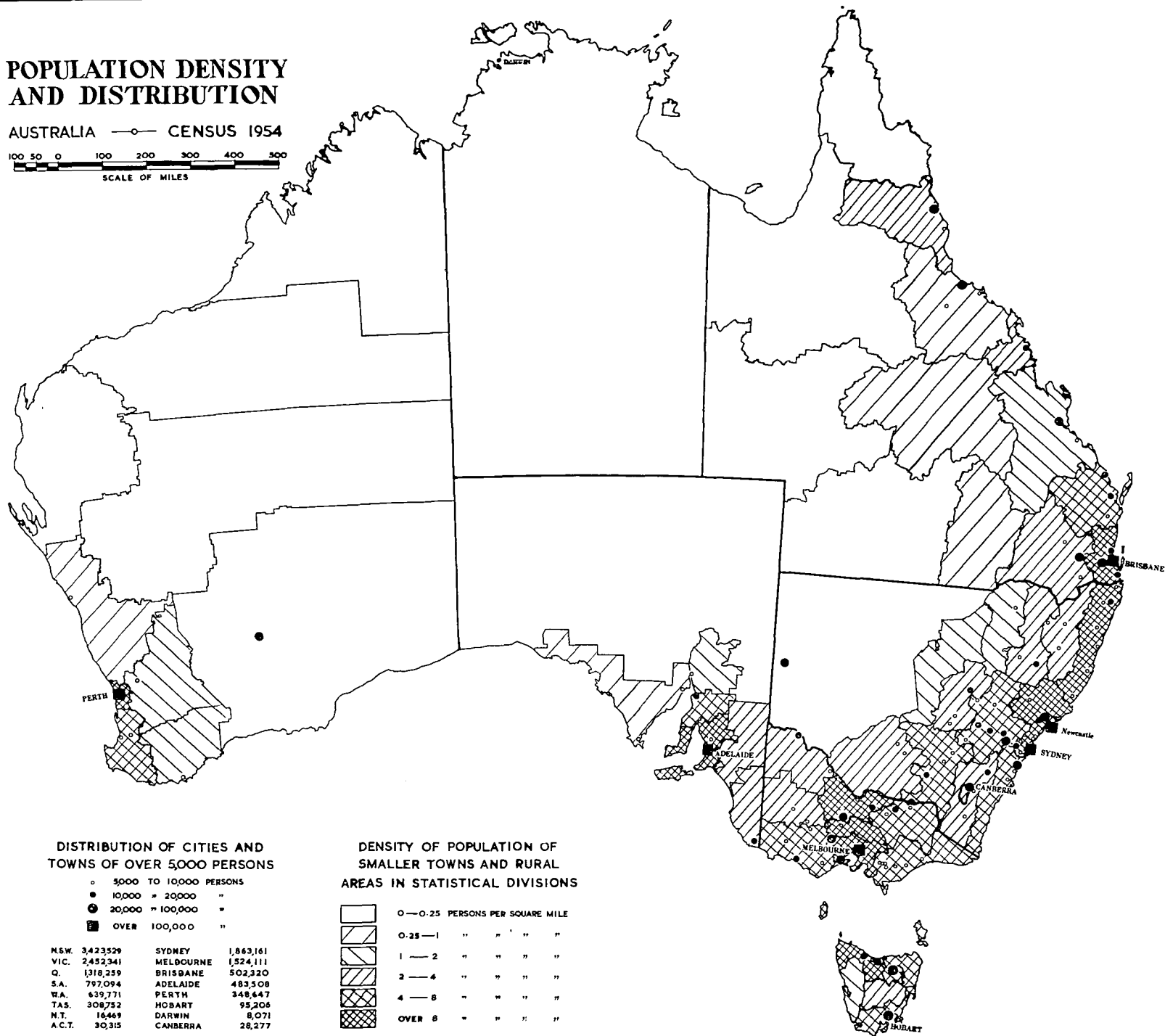
AUSTRALIA, 1921 TO 1959



POPULATION DENSITY AND DISTRIBUTION

AUSTRALIA —○— CENSUS 1954

100 50 0 100 200 300 400 500
SCALE OF MILES



DISTRIBUTION OF CITIES AND TOWNS OF OVER 5,000 PERSONS

- 5,000 TO 10,000 PERSONS
- 10,000 " 20,000 "
- 20,000 " 100,000 "
- OVER 100,000 "

N.S.W. 3,423,529	SYDNEY 1,863,161
VIC. 2,452,341	MELBOURNE 1,524,111
Q. 1,318,259	BRISBANE 502,320
S.A. 797,094	ADELAIDE 483,508
W.A. 639,771	PERTH 348,647
TAS. 308,752	HOBART 95,206
N.T. 16,469	DARWIN 8,071
A.C.T. 30,315	CANBERRA 28,277

DENSITY OF POPULATION OF SMALLER TOWNS AND RURAL AREAS IN STATISTICAL DIVISIONS

○	0—0.25 PERSONS PER SQUARE MILE
○—	0.25—1 " " " "
1—2	1—2 " " " "
2—4	2—4 " " " "
4—8	4—8 " " " "
OVER 8	OVER 8 " " " "

seen in the reduction of the rate from 2.04 to 1.64 per cent. From 1924 to 1929, more settled and prosperous conditions were experienced; encouraged migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate, the annual rate of growth rose to 1.88 per cent. After 1929 came the economic depression, and immigration ceased—in fact, Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the annual rate of growth of the population fell to 0.85 per cent. With the outbreak of war in 1939, Australia entered a new phase in her demographic history, the full effects of which will not be seen for some time to come. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each war year from 1940 to 1945, and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible. The post-war period 1947 to 1959 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in very high net gains in each of the four years 1949 to 1952. The annual rate of growth for the period 1947 to 1959 was 2.35 per cent.

Rates of population growth from 1881 are shown for each State and Territory of Australia in the annual bulletin, *Demography*.

(ii) *Various Countries*. Estimated rates of growth of the population of Australia in comparison with those for other countries are shown in the following table:—

POPULATION: RATES OF GROWTH IN VARIOUS COUNTRIES.

Country.	Annual Rate of Population Growth. (Per cent.)					Country.	Annual Rate of Population Growth. (Per cent.)				
	1931- 36.	1936- 41.	1941- 46.	1946- 51.	1951- 56.		1931- 36.	1936- 41.	1941- 46.	1946- 51.	1951- 56.
Ceylon ..	1.34	1.40	2.15	2.95	2.89	Denmark ..	0.84	0.74	1.20	0.97	0.74
Canada ..	1.23	0.85	1.35	2.62	2.80	Sweden ..	0.34	0.45	1.01	1.03	0.68
Australia ..	0.76	0.96	0.98	2.55	2.28	Germany ..	0.58	(b)	(b)	0.92	0.56
New Zealand ..	0.79	a 0.58	1.81	2.04	2.27	Belgium ..	0.42	-0.10	0.22	0.73	0.56
U.S.A. ..	0.69	0.79	1.18	1.79	1.72	Italy ..	0.63	c 0.55	d 0.49	0.70	0.54
Japan ..	0.77	1.06	0.92	2.05	1.36	England and Wales ..	0.42	0.44	0.45	0.61	0.30
Netherlands ..	1.26	1.12	1.00	1.72	1.19	Scotland ..	0.50	0.64	0.03	-0.08	0.12
Switzerland ..	0.44	0.43	0.98	1.24	1.19	Ireland, Re- public of	0.28	0.18	-0.20	-0.01	-0.42
Norway ..	0.46	0.52	0.90	1.25	0.99						
Spain ..	1.46	0.91	0.94	0.61	0.78						
France ..	0.02	-1.48	0.51	1.10	0.75						

(a) Excludes armed forces overseas at 31st December, 1941.
war losses.

(d) Territory defined by 1947 peace treaty.

(b) Not available.

(c) Excludes

NOTE.—Minus sign (—) denotes decrease.

§ 6. Density.

1. *General*.—From certain aspects, population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,971,081 square miles and an estimated population at 31st December, 1959, of 10,166,173, excluding full-blood aborigines, has a density of only 3.42 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents and sub-continents, the densities in 1958 were approximately as follows:—Europe (excluding U.S.S.R.), 220; Asia (excluding U.S.S.R.), 152; U.S.S.R. 24; Africa, 20; North and Central America, 27; and South America, 20. The population of Australia has thus about one-sixth of the density of that of South America and of Africa; about one-seventh of that of U.S.S.R.; about one-eighth of that of North and Central America; about one-forty-fourth of that of Asia (excluding U.S.S.R.); and about one-sixty-fifth of that of Europe (excluding U.S.S.R.).

On account of the large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole, the figure has increased from 1.29 per square mile in 1901 to 3.42 in 1959. The rise in density from 1901 to 1959 in each State and Territory was:—New South Wales 4.45 to 12.25, Victoria 13.77 to 32.35, Queensland 0.76 to 2.17, South Australia 0.95 to 2.46, Western Australia 0.20 to 0.74, Tasmania 6.68 to 13.53, Northern Territory 0.01 to 0.04 and Australian Capital Territory 2.05 (in 1911) to 53.19. When comparing the density of population of the several States, consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The proportion of the area of Australia receiving less than 10 inches of

rainfall is 38 per cent.; that of the various States is:—New South Wales, 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; and Tasmania, nil.

2. **Main Countries of the World.**—Number and density of population of the more important countries of the world are shown in the following table. In some instances, more particularly in the cases of Asia and Africa, the numbers must be considered as rough approximations only. The figures for the individual countries and continents accord, in the main, with those in the Population and Vital Statistics Report for July, 1959, (Vol. XI, No. 3) which is published by the Statistical Office of the United Nations. Details relate, in most cases, to mid-year 1958 estimates but in a few cases these are not available and the latest estimate available has been used. The totals for the continents include countries and territories not listed in the table below and adjustments for over- and under-estimation and enumeration.

POPULATION OF THE PRINCIPAL COUNTRIES OF THE WORLD: NUMBER AND DENSITY, 1958.

Country.	Population. (‘000.)	Density. (a)	Country.	Population. (‘000.)	Density. (a)
EUROPE.			AFRICA.		
Germany	71,743	521.6	Nigeria	33,043	97.4
United Kingdom	51,870	550.6	Egypt	24,781	64.2
Italy	48,739	419.1	Ethiopia and Eritrea, Federation of	21,600	47.2
France	44,500	209.1	French West Africa	20,481	12.1
Spain	29,662	152.6	Union of South Africa(d)	14,418	30.5
Poland	28,783	239.1	Belgian Congo	13,559	15.0
Yugoslavia	18,397	186.3	Sudan	11,037	11.4
Romania	18,059	196.9	Morocco	10,330	60.3
Czechoslovakia	13,469	272.8	Algeria	10,265	11.2
Netherlands	11,173	891.8	Tanganyika Territory	8,916	24.6
Hungary	9,857	274.4	Rhodesia and Nyasaland, Federation of	7,650	15.8
Belgium	9,053	768.6	Kenya	6,351	28.2
Portugal	8,980	252.3	<i>Total Africa</i>	<i>230,000</i>	<i>19.7</i>
Greece	8,173	159.7	NORTH AND CENTRAL AMERICA.		
Bulgaria	7,722	179.4	United States of America(e)	174,231	48.3
Sweden	7,415	427.1	Mexico	32,348	42.5
Austria	7,021	216.9	Canada	17,048	4.4
Switzerland	5,185	325.3	Cuba	6,466	146.2
Denmark	4,530	272.6	<i>Total North and Central America</i>	<i>256,000</i>	<i>27.4</i>
Finland	4,376	33.6	SOUTH AMERICA.		
Norway	3,526	28.2	Brazil	62,725	19.1
Ireland, Republic of	2,853	105.1	Argentina	20,256	18.9
<i>Total Europe</i>	<i>418,000</i>	<i>219.6</i>	Colombia	13,522	30.8
ASIA.			Peru	10,213	20.6
China	640,000	169.8	Chile	7,298	25.5
India	397,540	313.7	Venezuela	6,320	18.0
Japan	91,760	642.9	<i>Total South America</i>	<i>134,000</i>	<i>19.5</i>
Indonesia	86,900	150.9	OCEANIA.		
Pakistan	85,635	234.8	Australia(f)	9,846	3.3
Viet-Nam	27,400	217.7	New Zealand and Dependencies(d)	2,282	22.1
Turkey(b)	25,932	86.4	Territory of New Guinea	1,341	14.4
Philippines	23,122	200.0	Hawaii	637	99.2
South Korea	22,633	604.8	Papua	487	5.4
Thailand	21,474	108.2	Fiji Islands	368	52.2
Burma	20,255	77.4	<i>Total Oceania</i>	<i>15,800</i>	<i>4.8</i>
Iran	19,723	31.3	SUMMARY.		
Afghanistan	13,000	51.8	Europe	418,000	219.6
Taiwan	9,851	711.0	Asia	1,592,000	151.9
Ceylon	9,361	369.5	U.S.S.R.	206,200	23.8
Nepal	8,910	163.9	Africa	230,000	19.7
Iraq	6,700	39.0	America, North and Central	256,000	27.4
Malaya, Federation of	6,499	128.2	America, South	134,000	19.5
Saudi Arabia	6,036	9.8	Oceania	15,800	4.8
<i>Total Asia</i>	<i>1,592,000</i>	<i>151.9</i>	<i>Total</i>	<i>2,852,000</i>	<i>54.6</i>
<i>U.S.S.R. (Europe and Asia)</i>	<i>(c) 208,826</i>	<i>(c) 24.1</i>			

(a) Number of persons per square mile.

January, 1959. (d) Includes non-Europeans.

aboriginals.

(b) Includes European Territory.

(e) Includes Alaska.

(c) Census, 15th

(f) Excludes full-blood

§ 7. General Characteristics.

1. **Sex Distribution.**—(i) *States.* The number of males to each hundred females has been adopted as a measure of the "masculinity" of the population. On pages 163–5 in Official Year Book No. 2 a table is included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In issue No. 5, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the 1911 Census.

With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and from the general long-term fall in the birth rate. At the 1947 Census, the numbers of the sexes were practically equal, but there has since been an increase in masculinity owing to the higher birth rate and to the increase in the number of immigrants, the majority of whom are males.

The following table shows the masculinity of the population at five-year intervals from 1925 to 1950 and for each of the years 1955 to 1959:—

POPULATION: MASCULINITY, 1925 TO 1959.

(NUMBER OF MALES PER 100 FEMALES.)

At 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1925	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1935	102.38	97.84	109.81	100.20	113.21	102.45	212.80	115.64	102.71
1940	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1945	99.75	97.50	105.45	98.21	105.49	101.15	220.16	115.86	100.36
1950	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1955	100.91	101.67	105.34	102.96	106.22	103.87	155.28	112.86	102.53
1956	100.89	101.85	105.60	103.05	106.43	105.87	144.29	121.76	102.72
1957	100.78	101.53	105.11	102.83	105.83	106.61	134.55	113.81	102.45
1958	100.33	101.37	104.81	102.46	105.51	107.85	126.54	114.81	102.17
1959	100.11	101.41	104.74	102.61	105.09	109.29	125.01	111.98	102.11

(a) Revised figures based on the June, 1957 Population Count of Canberra are as follows:—1955, 107.77 and 1956, 113.19.

(ii) *Various Countries.* The masculinity of the population in various countries is shown in the following table:—

POPULATION: MASCULINITY IN VARIOUS COUNTRIES.

Country.	Year.	Number of Males per 100 Females.	Country.	Year.	Number of Males per 100 Females.
Canada	1958	102.9	Northern Ireland ..	1957	95.0
Australia(a) ..	1959	102.1	Italy	1951	95.0
Ireland, Republic of ..	1956	101.9	Yugoslavia	1956	94.8
New Zealand(b) ..	1959	101.0	Switzerland	1957	93.8
Union of South Africa(c)	1956	99.9	Spain	1955	93.7
Sweden	1957	99.5	France	1957	93.6
Netherlands	1957	99.3	England and Wales ..	1958	93.1
Norway	1956	99.2	Poland	1957	92.8
Denmark	1956	98.4	Scotland	1957	91.8
United States of America	1958	98.1	Germany, Federal Re-		
Japan	1957	96.7	public	1956	88.3
Belgium	1956	96.6	Austria	1957	87.2

(a) Excludes full-blood aboriginals.

(b) Excludes Maoris.

(c) White population only.

2. **Age Distribution.**—The age distribution of the population is obtained only at a census, but estimates, based on the census distribution and on births, recorded ages at death and recorded ages of migrants, are made for intercensal years.

Estimates for 30th June, 1958 and 1959, are shown in the following table. Particulars of the age distribution recorded at the 1947 and 1954 Censuses were published in Official Year Book No. 43, page 560.

POPULATION: ESTIMATED AGE DISTRIBUTION(a), AUSTRALIA.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age last Birthday. (Years.)	30th June, 1958.			30th June, 1959.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
0-4	533,488	508,502	1,041,990	547,386	521,697	1,069,083
5-9	507,139	485,132	992,271	514,956	492,874	1,007,830
10-14	464,944	443,605	908,549	483,808	460,708	944,516
15-19	352,055	336,006	688,061	371,201	354,814	726,015
20-24	323,071	301,832	624,903	333,080	314,148	647,228
25-29	353,805	320,331	674,136	346,371	315,761	662,132
30-34	393,414	359,883	753,297	393,039	357,978	751,017
35-39	363,244	347,263	710,507	378,970	360,072	739,042
40-44	338,731	330,627	669,358	332,687	324,696	657,383
45-49	314,654	294,383	609,037	324,785	308,655	633,440
50-54	272,718	252,588	525,306	280,007	259,059	539,066
55-59	221,476	218,961	440,437	233,013	228,762	461,775
60-64	177,393	202,550	379,943	174,699	195,729	370,428
65-69	152,111	178,065	330,176	151,656	183,571	335,227
70-74	107,180	133,934	241,114	111,368	138,805	250,173
75-79	60,768	84,208	144,976	62,965	89,240	152,205
80-84	29,654	45,347	75,001	30,213	46,653	76,866
85-89	10,389	17,560	27,949	10,549	18,341	29,090
90-94	2,905	5,222	8,127	2,772	4,917	7,689
95 and over	291	711	1,002	249	768	1,017
Total	4,979,430	4,866,710	9,846,140	5,083,774	4,977,448	10,061,222

(a) Based on the age distribution at the Census of 30th June, 1954 (adjusted only for "not stated" ages) and on subsequent births, recorded ages at death and recorded ages of migrants.

The next table shows the change which has taken place in the age constitution of the population of Australia since 1871. Up to the 1954 Census, each successive census except that of 1921 had revealed a larger percentage of the population 15 years of age and over than had been recorded at the previous census. In 1954, however, the proportion of this age group dropped sharply to a level (71.5 per cent.) slightly below that of 1933, the proportion under 15 years showing a corresponding increase to 28.5 per cent. of the total population. The proportions at 30th June, 1959 were estimated to be 70.0 per cent. and 30.0 per cent. respectively.

POPULATION: PROPORTIONAL AGE DISTRIBUTION, AUSTRALIA, 1871 TO 1959.
(Per cent.)

Census.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
1871..	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881..	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891..	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901..	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911..	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921..	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933..	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947..	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954..	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1959(a)	30.41	62.31	7.28	100	29.64	60.67	9.69	100	30.03	61.50	8.47	100

(a) Estimate 30th June.

3. **Conjugal Condition.**—Of the total population of Australia at the 1954 Census, 46.9 per cent. had never married; 47.1 per cent. were married (including 1.4 per cent. married but permanently separated); 5.2 per cent. were widowed; and 0.8 per cent. were divorced. Between 1947 and 1954, the number never married increased by 17.7 per cent.; those married (including permanently separated) by 20.6 per cent.; the widowed by 10.2 per cent.; and the divorced by 31.8 per cent.

From the demographic point of view, the most important change in the conjugal condition of the population of Australia between 1947 and 1954 was the increase of 35.0 per cent. in never married persons under 15 years of age, which more than offset the continued decrease in never married persons aged 15 years and over. This decrease was, however, confined to females, as the number of unmarried males aged 15 years and over increased by 3.6 per cent. between 1947 and 1954. The proportion of married persons continued to increase, and in 1954 comprised 66 per cent. of the population 15 years of age and over who stated their conjugal condition, compared with 62 per cent. in 1947 and 54 per cent. in 1933.

The number of widowed females recorded in Australia in 1954 was 351,102, or more than three times as many as the number of widowed males. This disparity is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage; and the second is that a larger proportion of widowed males remarry.

POPULATION: CONJUGAL CONDITION, AUSTRALIA, 1947 AND 1954,
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under 15 years of age ..	967,759	931,294	1,899,053	1,309,660	1,253,674	2,563,334	664,281
15 years of age and over	929,212	748,414	1,677,626	962,491	684,154	1,646,645	-30,981
Total	1,896,971	1,679,708	3,576,679	2,272,151	1,937,828	4,209,979	633,300
Married	1,692,913	1,686,885	3,379,798	2,062,122	2,043,651	4,105,773	725,975
Married but Permanently Separated	58,722	67,890	126,612	57,371	66,228	123,599	-3,013
Widowed	111,680	309,383	421,063	113,064	351,102	464,166	43,103
Divorced	24,952	27,441	52,393	32,389	36,650	69,039	16,646
Not Stated	12,132	10,681	22,813	9,021	4,953	13,974	-8,839
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

NOTE.—Minus sign (—) denotes decrease.

4. **Birthplace.**—At 30th June, 1954, the Australian-born element of the population of Australia represented 85.7 per cent. as compared with 90.2 per cent. at the 1947 Census. The number of Australian-born increased by 864,893, or 12.7 per cent., between 1947 and 1954, while the oversea-born population increased by 542,279 or 72.9 per cent. The latter resulted mainly from the increase of 503,458 in the number of persons of European birthplace between 1947 and 1954—principally persons born in England (an increase of 96,819); Italy (86,265); Germany (50,855); Poland (50,021); and the Netherlands (49,861).

Although numerically less significant, the number of persons of Asian and African birthplace more than doubled during the intercensal period, but there was little change in the number of persons born elsewhere.

Of persons born outside Australia, 57 per cent. were males and 43 per cent. females.

POPULATION: BIRTHPLACES, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Birthplace.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
<i>Australia</i>	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
<i>New Zealand</i>	21,890	21,720	43,610	21,723	21,627	43,350	— 260
<i>Other Australasian</i>	776	810	1,586	1,065	1,058	2,123	537
Total, Australasia	3,402,990	3,477,377	6,880,367	3,835,223	3,910,314	7,745,537	865,170
<i>England</i>	205,330	176,262	381,592	256,699	221,712	478,411	96,819
<i>Wales</i>	6,859	5,005	11,864	8,343	6,144	14,487	2,623
<i>Scotland</i>	55,734	47,264	102,998	66,792	56,842	123,634	20,636
<i>Northern Ireland</i>	3,214	2,325	5,539	5,527	3,976	9,503	3,964
<i>Ireland, Republic of</i>	2,420	2,244	4,664	3,595	2,397	5,992	1,328
<i>Ireland (undefined)</i>	18,309	16,301	34,610	18,054	14,124	32,178	—2,432
<i>Austria</i>	2,368	1,851	4,219	5,582	5,286	10,868	6,649
<i>Czechoslovakia</i>	926	558	1,484	8,515	4,165	12,680	11,196
<i>Estonia</i>	656	446	1,102	3,393	3,156	6,549	5,447
<i>France</i>	1,077	1,138	2,215	2,417	2,282	4,699	2,484
<i>Germany</i>	8,955	5,612	14,567	33,663	31,759	65,422	50,855
<i>Greece</i>	9,115	3,176	12,291	16,794	9,068	25,862	13,571
<i>Hungary</i>	702	525	1,227	9,054	5,348	14,602	13,375
<i>Italy</i>	22,506	11,126	33,632	80,279	39,618	119,897	86,265
<i>Latvia</i>	296	151	447	9,524	7,734	17,258	16,811
<i>Lithuania</i>	169	104	273	5,272	3,152	8,424	8,151
<i>Malta</i>	2,472	766	3,238	12,411	7,577	19,988	16,750
<i>Netherlands</i>	1,577	597	2,174	30,046	21,989	52,035	49,861
<i>Poland</i>	3,672	2,901	6,573	35,652	20,942	56,594	50,021
<i>Ukraine</i>	2,817	2,159	4,976	8,728	6,029	14,757	22,872
<i>U.S.S.R.</i>	4,281	1,585	5,866	15,473	6,672	22,856	16,990
<i>Yugoslavia</i>	11,990	4,065	16,055	17,471	7,806	25,277	9,222
Total, Europe	365,445	286,161	651,606	659,703	495,361	1,155,064	503,458
<i>Ceylon, India and Pakistan</i>	5,247	2,913	8,160	8,487	6,373	14,860	6,700
<i>China</i>	5,135	1,269	6,404	7,199	3,078	10,277	3,873
<i>Cyprus</i>	544	137	681	4,254	1,519	5,773	5,092
<i>Syria and Lebanon</i>	1,035	851	1,886	2,614	1,552	4,166	2,280
<i>Other Asian</i>	4,129	2,836	6,965	9,717	6,788	16,505	9,540
Total, Asia	16,090	8,006	24,096	32,271	19,310	51,581	27,485
<i>Egypt</i>	412	391	803	4,392	3,758	8,150	7,347
<i>Union of South Africa</i>	3,071	2,795	5,866	3,113	2,858	5,971	105
<i>Other African</i>	494	374	868	930	775	1,705	837
Total, Africa	3,977	3,560	7,537	8,435	7,391	15,826	8,289
<i>Canada, (including New- foundland)</i>	2,339	1,722	4,061	2,571	1,917	4,488	427
<i>United States of America</i>	3,794	2,438	6,232	5,039	3,250	8,289	2,057
<i>Other American</i>	744	593	1,337	938	781	1,719	382
Total, America	6,877	4,753	11,630	8,548	5,948	14,496	2,866
<i>Polynesia</i>	1,526	1,619	3,145	1,628	1,730	3,358	213
<i>At Sea</i>	465	512	977	310	358	668	— 309
Total Born Outside Australia	417,046	327,141	744,187	733,683	552,738	1,286,466	542,279
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

NOTE.—Minus sign (—) denotes decrease.

5. **Period of Residence in Australia.**—This table classifies the immigrant population of Australia according to period of residence in Australia, and reflects the greatly increased rate of immigration since 1947. It shows that in 1954, of persons born outside Australia who stated their period of residence, 40.9 per cent. had resided in Australia for a period of less than 5 years, 53.9 per cent. for less than 8 years, and 56.2 per cent. for less than 15 years, compared with 5.7, 7.7 and 14.8 per cent. respectively at the previous Census in 1947.

**IMMIGRANT POPULATION: PERIOD OF RESIDENCE, AUSTRALIA,
1947 AND 1954.**

PERSONS BORN OUTSIDE AUSTRALIA.

Period of Residence.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase. 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 year	16,660	9,953	26,613	47,430	34,841	82,271	55,658
1 year and under 2 years	4,116	4,953	9,069	32,228	27,096	59,324	50,255
2 years and under 3 years	2,124	1,322	3,446	65,374	39,354	104,728	101,282
3 years and under 4 years	822	462	1,284	71,183	50,367	121,550	120,266
4 years and under 5 years	671	319	990	87,636	62,200	149,836	148,846
Total under 5 years	24,393	17,009	41,402	303,851	213,858	517,709	476,307
5 years and under 6 years	2,217	1,238	3,455	64,618	45,416	110,034	106,579
6 years and under 7 years	2,374	1,827	4,201	21,522	15,424	36,946	32,745
7 years and under 8 years	3,608	3,032	6,640	9,452	7,883	17,335	10,695
8 years and under 9 years	7,966	6,803	14,769	15,677	12,526	28,203	- 23,278
9 years and under 10 years	6,270	4,166	10,436				
10 years and under 15 years	13,507	12,769	26,276				
Total 5 years and under 15 years ..	35,942	29,835	65,777	111,269	81,249	192,518	126,741
15 years and over ..	345,039	270,399	615,438	306,288	247,819	554,107	- 61,331
Not Stated	11,672	9,898	21,570	12,275	9,857	22,132	562
Born outside Australia ..	417,046	327,141	744,187	733,683	552,783	1,286,466	542,279
Born in Australia(a) ..	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Excludes full-blood aboriginals.

NOTE.—Minus sign (—) denotes decrease.

6. **Nationality.**—At 30th June, 1954, 8,582,251 persons, or 95.5 per cent. of the Australian population, were of British nationality (consisting of 85.7 per cent. born in Australia and 9.8 per cent. born outside), compared with 99.5 per cent. in 1947 (90.2 per cent. Australian-born and 9.3 per cent. born outside Australia). Of the oversea-born population in 1954, 68.6 per cent. were British subjects, compared with 94.8 per cent. in 1947. The most numerous foreign nationals in Australia at 30th June, 1954, were:—Italian, 90,018 persons; Dutch, 53,458; Polish, 49,746; German, 31,448; Yugoslav, 18,124; Greek, 17,843; Ukrainian, 17,239; and Latvian, 17,225.

POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Nationality.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British(a)—							
Born in Australia ..	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
Born outside Australia ..	387,767	317,767	705,534	484,798	397,389	882,187	176,653
Total, British ..	3,768,091	3,772,614	7,540,705	4,297,233	4,285,018	8,582,251	1,041,546
Foreign—							
American (U.S.) ..	2,474	877	3,351	3,761	1,958	5,719	2,368
Austrian ..	376	280	656	1,859	1,696	3,555	2,899
Chinese ..	4,329	529	4,858	5,010	931	5,941	1,083
Czechoslovak ..	239	135	374	4,958	2,280	7,238	6,864
Dutch ..	1,408	593	2,001	30,518	22,940	53,458	51,457
Estonian ..	159	96	255	2,720	2,581	5,301	5,046
French ..	770	551	1,321	1,908	1,624	3,532	2,211
German ..	1,669	692	2,361	17,262	14,186	31,448	29,087
Greek ..	3,720	784	4,504	11,415	6,428	17,843	13,339
Hungarian ..	154	173	327	5,910	3,746	9,656	9,329
Italian ..	5,473	1,699	7,172	61,673	28,345	90,018	82,846
Latvian ..	36	25	61	9,161	8,064	17,225	17,164
Lithuanian ..	23	15	38	4,854	3,248	8,102	8,064
Norwegian ..	685	60	745	1,414	284	1,698	953
Polish ..	839	721	1,560	29,524	20,222	49,746	48,186
Romanian ..	39	31	70	871	519	1,390	1,320
Russian ..	333	210	543	2,174	2,077	4,251	3,708
Swiss ..	321	127	448	927	696	1,623	1,175
Ukrainian ..				9,871	7,368	17,239	17,239
Yugoslav ..	1,753	343	2,096	11,633	6,491	18,124	16,028
Other Foreign ..	3,292	672	3,964	8,880	3,343	12,223	8,259
Stateless ..	1,187	761	1,948	22,582	16,367	38,949	37,001
Total, Foreign ..	29,279	9,374	38,653	248,885	155,394	404,279	365,626
Total ..	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) "Irish" nationality is included with "British" nationality for the purpose of this table.

7. Religion.—At the 1921 Census, 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the Censuses of 1933, 1947 and 1954, when the public was informed that there was no legal obligation to answer this question, 848,948 persons (12.8 per cent.), 824,824 (10.9 per cent.) and 855,819 (9.5 per cent.), respectively, gave no reply. Of males 10.3 per cent., and of females 8.7 per cent., did not state their religion in 1954.

Of those who stated their religion, the greatest numerical increase during the inter-censal period between 1947 and 1954 was recorded by Roman Catholic and Catholic combined. This group was followed closely by Church of England, and then Presbyterian, Methodist and Lutheran in that order. Amongst the denominations with the largest numbers of adherents, the greatest proportional increases were recorded by Roman Catholic and Catholic combined, 29.9 per cent.; Presbyterian, 17.0 per cent.; Church of England, 15.3 per cent.; and Methodist, 12.2 per cent. The largest proportional increase was that of the Lutheran denomination, 73.7 per cent.

At the 1954 Census, as at earlier censuses, 99 per cent. of those who stated their religion professed the Christian faith. Between 1947 and 1954, the number who stated they were of non-Christian religion increased by 50 per cent., while those specifically stating they had no religion decreased by 10 per cent.

POPULATION : RELIGION, AUSTRALIA, 1947 AND 1954.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Religion.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase. 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Christian—							
Baptist	53,197	60,330	113,527	60,048	67,396	127,444	13,917
Brethren	5,807	7,195	13,002	7,511	8,893	16,404	3,402
Catholic, Roman(a) ..	335,241	294,957	630,198	413,719	347,383	761,102	130,904
Catholic(a)	448,959	507,581	956,540	635,398	664,486	1,299,884	343,344
Church of Christ	33,276	38,495	71,771	37,880	42,484	80,364	8,593
Church of England ..	1,480,527	1,476,505	2,957,032	1,709,197	1,699,653	3,408,850	451,818
Congregational	29,364	33,879	63,243	32,508	36,944	69,452	6,209
Greek Orthodox	(b)	(b)	(b)	44,382	30,363	74,745	(b)
Lutheran	34,854	32,037	66,891	60,306	55,872	116,178	49,287
Methodist	425,745	445,680	871,425	478,605	499,328	977,933	106,508
Presbyterian	366,892	376,648	743,540	430,798	439,444	870,242	126,702
Protestant (undefined) ..	36,708	36,562	73,270	48,539	46,877	95,416	22,146
Salvation Army	17,542	20,030	37,572	20,304	22,534	42,838	5,266
Seventh Day Adventist ..	7,453	10,097	17,550	11,166	14,163	25,329	7,779
Other (including Christian undefined) ..	27,492	29,883	57,375	31,957	35,616	67,573	10,198
Total, Christian ..	3,303,057	3,369,879	6,672,936	4,022,318	4,011,436	8,033,754	1,360,818
Non-Christian—							
Hebrew	16,426	15,593	32,019	24,548	23,888	48,436	16,417
Other	3,736	807	4,543	4,910	1,471	6,381	1,838
Total, Non-Christian	20,162	16,400	36,562	29,458	25,359	54,817	18,255
Indefinite	9,838	8,870	18,708	10,038	8,418	18,456	-252
No Religion	18,888	7,440	26,328	16,652	7,032	23,684	-2,644
No Reply	445,425	379,399	824,824	467,652	388,167	855,819	30,995
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) So described in individual Census Schedules.

(b) Not available.

NOTE.—Minus sign (—) denotes decrease.

8. **Industry.**—In the following table, the male and female populations of Australia are classified according to the industry in which they were usually engaged at the 1954 Census. Persons usually engaged in industry are regarded as being "in the work force," while the remainder of the population, which at the 1954 Census comprised 5,284,508 persons, is classified as not being in the work force. The term "in the work force" includes persons of all ages who are employers, self-employed or working on their own account, wage and salary earners and unpaid helpers engaged in industry. It also includes persons "not at work," i.e., those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the Census by reason of sickness, accident, etc., or because they were on strike, changing jobs or temporarily laid off, etc.; also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the Census.

Persons who do not earn their living by doing work for monetary reward, such as children, housewives, full-time students, retired persons, pensioners and permanent inmates of institutions, are regarded as not being in the work force.

About 63 in every 100 of the male population and 19 in every 100 of the female population were in the work force, or, in other words, there were in 1954, 3.4 males to every female in the work force.

Of the total males in the work force, those engaged in Manufacturing represented the largest proportion, namely 28.0 per cent., followed in order by those in Primary Production, 16.1 per cent.; Commerce, 13.6 per cent.; Building and Construction, 11.3 per cent.; Public Authority (n.e.i.) and Professional Activities, 9.1 per cent.; and Transport and Storage, 8.4 per cent.

As with males, females in the work force were engaged mainly in Manufacturing, 26.9 per cent., followed in order by those in Commerce, 22.5 per cent.; Public Authority (n.e.i.) and Professional Activities, 22.1 per cent.; and Amusement, Hotels, Cafés, Personal Service, etc., 14.8 per cent.

**POPULATION CLASSIFIED ACCORDING TO INDUSTRY: AUSTRALIA,
CENSUS, 30th JUNE, 1954.**

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Industry Group and Sub-group.	Males.	Females.	Persons.	
			Number.	Proportion of Total. (Per cent.)
Primary Production—				
Fishing, Hunting and Trapping	10,003	126	10,129	0.11
Agriculture, Mixed Farming	220,218	12,172	232,390	2.59
Grazing	115,162	8,714	123,876	1.38
Dairying	100,553	11,004	111,557	1.24
Forestry	15,279	67	15,346	0.17
Total	461,215	32,083	493,298	5.49
Mining and Quarrying	60,310	1,061	61,371	0.68
Manufacturing—				
Founding, Engineering and Metalworking	229,431	32,305	261,736	2.91
Manufacture, Assembly and Repair of Ships, Vehicles, Parts and Accessories	132,653	6,463	139,116	1.55
Textile and Fibrous Materials (not Dress)	27,601	26,182	53,783	0.60
Clothing and Knitted Goods (including Needleworking)	23,144	73,367	96,511	1.07
Food, Drink and Tobacco	117,088	27,927	145,015	1.61
Sawmilling and Manufacture of Wood Products	53,252	2,136	55,388	0.62
Paper and Paper Products, Printing, Bookbinding and Photography	53,953	18,770	72,723	0.81
Other and Undefined	163,146	39,913	203,059	2.26
Total	800,268	227,063	1,027,331	11.43
Electricity, Gas, Water and Sanitary Services (Production, Supply and Maintenance) ..	69,554	4,096	73,650	0.82
Building and Construction—				
Construction and Repair of Buildings	196,205	2,452	198,657	2.21
Construction Works (other than Buildings)	125,624	1,341	126,965	1.41
Total	321,829	3,793	325,622	3.62
Transport and Storage—				
Road Transport and Storage	92,990	4,488	97,478	1.08
Shipping and Loading and Discharging Vessels	55,905	2,180	58,085	0.65
Rail and Air Transport	91,691	8,031	99,722	1.11
Total	240,586	14,699	255,285	2.84
Communication	63,802	16,748	80,550	0.90
Finance and Property; Business Services (n.e.i.)	64,366	34,278	98,644	1.10
Commerce	387,468	189,913	577,381	6.43
Public Authority (n.e.i.) and Professional Activities	260,474	186,443	446,917	4.97
Amusement, Hotels, Cafés, Personal Service, etc.	99,003	125,486	224,489	2.50
Other, Inadequately Described or Not Stated	27,745	9,739	37,484	0.42
Persons in the Work Force	2,856,620	845,402	3,702,022	41.20
Persons not in the Work Force	1,689,498	3,595,010	5,284,508	58.80
Total	4,546,118	4,440,412	8,986,530	100.00

9. **Occupational Status.**—The term “occupational status” relates to the capacity in which persons are engaged in the various branches of industry.

While the numbers of employers and of persons self-employed at the 1954 Census showed increases of approximately 13 per cent. and 6 per cent., respectively, as compared with 1947, the number of employees increased by slightly more than 20 per cent., and in 1954 constituted nearly 80 per cent. of the total work force, as compared with 77 per cent. in 1947. Employers and self-employed combined constituted 17.8 per cent. of the work force in 1954 as compared with 19.0 per cent. in 1947.

POPULATION: OCCUPATIONAL STATUS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Occupational Status.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
<i>In Work Force—</i>							
At Work—							
Employer	196,932	24,357	221,289	220,408	30,028	250,436	29,147
Self-employed ..	342,650	44,487	387,137	358,746	51,436	410,182	23,045
Employee (on wage or salary)	1,827,072	620,421	2,447,493	2,211,915	737,488	2,949,403	501,910
Helper (not on wage or salary)	24,227	4,498	28,725	18,342	9,866	28,208	-517
Total at Work ..	2,390,881	693,763	3,084,644	2,809,411	828,818	3,638,229	553,585
Not at Work(a) ..	66,009	16,765	82,774	40,913	13,953	54,866	-27,908
Not Stated	22,379	6,634	29,013	6,296	2,631	8,927	-20,086
Total in Work Force	2,479,269	717,162	3,196,431	2,856,620	845,402	3,702,022	505,591
Not in Work Force ..	1,318,101	3,064,826	4,382,927	1,689,498	3,595,010	5,284,508	901,581
Grand Total ..	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Includes persons who were (1) unable to secure employment; (2) temporarily laid off from their jobs; or (3) not actively seeking work at the time of the Census on account of sickness or accident, industrial dispute, resting between jobs or for any other reason.

NOTE.—Minus sign (—) denotes decrease.

10. **Race.**—The term “Race” as used for Census purposes is not synonymous with ethnic group, but is based on geographical rather than ethnological descriptions. The form of inquiry at the 1954 Census was:—“For persons of European Race, wherever born, write ‘European’. For non-Europeans, state the race to which they belong, for example, ‘Aboriginal’, ‘Chinese’, ‘Negro’, ‘Afghan’, etc. If the person is half-caste with one parent of European race, write also ‘H.C.’, for example ‘H.C. Aboriginal’, ‘H.C. Chinese’, etc.” The complementary instruction was:—“In the case of a person both of whose parents are non-European but of different races, state the race of that person’s father (and do *not* add ‘H.C.’).” This form of inquiry and the instruction are identical with those used at the 1947 Census. It follows that, as the essential distinction is between European and non-European races only, those having European blood to the extent of one half have been classed as half-castes of the non-European race.

A summary for the 1947 and 1954 Censuses is shown in the following table.

POPULATION: RACE, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Race.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase. 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Full-blood— European	3,765,238	3,758,891	7,524,129	4,508,795	4,412,896	8,921,691	1,397,562
Non-European—							
Arab	100	38	138	197	65	262	124
Chinese	6,594	2,550	9,144	9,150	3,728	12,878	3,734
Cingalese	97	53	150	196	72	268	118
Filipino	133	102	235	127	100	227	— 8
Indian(a)	2,278	202	2,480	1,892	317	2,209	—271
Japanese	108	49	157	247	292	539	382
Javanese, Indonesian, Koepanger	84	23	107	311	36	347	240
Malay	425	155	580	534	251	785	205
Pacific Islander (n.e.i.) ^b Torres Strait Islander ..	2,840	2,492	5,332	1,070	814	1,884	805
Siamese, Thailander ..				2,043	2,210	4,253	
Syrian, Lebanese	15	12	27	163	60	223	196
Asiatic (n.e.i.)	888	787	1,675	1,374	916	2,290	615
Other and Indefinite ..	1,045	425	1,470	848	221	1,069	—149
				180	72	252	
Total, Non-European							
Full-blood	14,607	6,888	21,495	18,332	9,154	27,486	5,991
Half-caste—							
Arab	6	2	8	16	11	27	19
Australian Aboriginal ..	14,026	13,153	27,179	15,849	15,510	31,359	4,180
Chinese	1,599	1,351	2,950	1,404	1,276	2,680	—270
Cingalese	51	53	104	58	65	123	19
Filipino	111	103	214	101	100	201	— 13
Indian(a)	235	183	418	259	179	438	20
Japanese	91	87	178	114	132	246	68
Javanese, Indonesian, Koepanger	32	24	56	11	21	32	— 24
Malay	196	198	394	214	235	449	55
Pacific Islander (n.e.i.) ^b Torres Strait Islander ..	359	353	712	371	366	737	134
Siamese, Thailander ..				60	49	109	
Syrian, Lebanese	2	6	8	25	18	43	35
Asiatic (n.e.i.)	111	112	223	103	96	199	— 24
Other and Indefinite ..	706	584	1,290	140	102	242	—580
				266	202	468	
Total, Half-caste ..	17,525	16,209	33,734	18,991	18,362	37,353	3,619
Total, Non-European Full-blood and Half-caste	32,132	23,097	55,229	37,323	27,516	64,839	9,610
Grand Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Native of India or Pakistan,
and South Sea Islander, so described.

(b) Includes Fijian, Maori, Papuan, Pacific Islander, Polynesian

NOTE.—Minus sign (—) denotes decrease.

11. **Other General Characteristics.**—Questions asked at the 1933 Census regarding orphanhood, and the ability to read and write a foreign language (of persons who could not read and write English), were not asked on the schedules of the 1947 and 1954 Censuses and the question on dependent children asked at the 1947 Census was not asked in 1954. The latest data published in respect of the first two questions appear on pages 482 and 487 of Official Year Book No. 36, and in respect of dependent children on page 326 of Official Year Book No. 41.

§ 8. Oversea Migration.

1. Oversea Migration during the Present Century.—Earlier issues of the Official Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years is published in the annual bulletin, *Demography*. The following table shows, for Australia, arrivals and departures and net migration since 1901. A graph showing arrivals and departures from 1921 to 1959 appears on page 300.

OVERSEA MIGRATION: AUSTRALIA.

Period.	Arrivals.			Departures.			Net Migration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05..	196,993	84,167	281,160	204,170	93,783	297,953	- 7,177	- 9,616	- 16,793
1906-10..	251,482	119,552	371,034	213,483	100,273	313,756	37,999	19,279	57,278
1911-15..	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20..	438,721	100,764	539,485	390,202	78,574	468,776	48,519	22,190	70,709
1921-25..	289,695	188,357	478,052	172,236	122,550	294,786	117,459	65,807	183,266
1926-30..	266,593	203,887	470,480	193,336	147,437	340,773	73,257	56,450	129,707
1931-35..	124,207	115,116	239,323	134,883	115,326	250,209	- 10,676	- 210	- 10,886
1936-40(a)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941-45(a)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946-50(a)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951-55..	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1955 ..	133,463	103,774	237,237	76,805	63,177	139,982	56,658	40,597	97,255
1956 ..	141,408	106,040	247,448	87,013	66,437	153,450	54,395	39,603	93,998
1957 ..	123,487	109,841	233,328	87,081	67,515	154,596	36,406	42,326	78,732
1958 ..	121,030	109,234	230,264	91,367	73,531	164,898	29,663	35,703	65,366
1959 ..	139,941	113,955	253,896	98,917	78,188	177,105	41,024	35,767	76,791

(a) Excludes movement of defence personnel from September, 1939 to June, 1947.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

As the encouragement of immigration by governmental assistance has been a feature of Australian immigration policy, a clear indication of the significance of migration movements is obtained when "assisted" and "unassisted" movements are distinguished. This was shown broadly, for the period 1901-1952, in Official Year Book No. 40, page 361, and has been continued in the following table for the period 1926 to 1959.

"ASSISTED" AND "UNASSISTED" MIGRATION: AUSTRALIA.

Period.	Arrivals.			Departures.	Excess of "Un-assisted" Arrivals over All Departures.
	Nominated and Selected ("Assisted").	Other ("Un-assisted").	Total.		
1926-30 ..	99,403	371,077	470,480	340,773	30,304
1931-35 ..	781	238,542	239,323	250,209	- 11,667
1936-40(a) ..	3,828	317,484	321,312	278,184	39,300
1941-45(a) ..	..	63,925	63,925	56,116	7,809
1946-50(a) ..	273,195	428,725	701,920	348,836	79,889
1951-55 ..	275,241	752,625	1,027,866	614,042	138,583
1955 ..	66,688	170,549	237,237	139,982	30,567
1956 ..	54,957	192,491	247,448	153,450	39,041
1957 ..	62,361	170,967	233,328	154,596	16,371
1958 ..	55,799	174,465	230,264	164,898	9,567
1959 ..	(b) 64,137	189,759	253,896	177,105	12,654

(a) Excludes movements of defence personnel from September, 1939, to June, 1947.

(b) Preliminary.

NOTE.—Minus sign (—) indicates excess of departures over "unassisted" arrivals.

It is not possible in the statistics of departures to distinguish the return movement of persons who came to Australia as "assisted" migrants from that of "unassisted" migrants. Consequently, the separate net migration of "assisted" and "non-assisted" persons cannot be ascertained. Nevertheless, the basis on which the above table has been compiled is sufficient to throw into relief the major trends in Australian migration statistics in the period reviewed.

Although separate net migration figures are not available, it is generally agreed that Australia has gained considerably more population through its encouraged migration programme than it has from non-assisted migration.

A detailed review of assisted migration into Australia in recent years is given in § 9.

2. **Classification of Arrivals and Departures.**—(i) *General.* Since 1st July, 1924, overseas travellers have been classified according to declared intention in regard to residence made at the time of arrival or departure. Certain of the headings previously used in this classification were changed, as from 1957, to ensure more accurate definition and to assist in interpretation of the figures. The figures themselves, however, are exactly comparable with those published in issues of the Official Year Book prior to No. 44.

"Long Term and Permanent Movement" (formerly described as "Permanent Movement") relates to *persons arriving* who state that they intend to reside in Australia for a period of one year or more; and to *persons departing* who state that they intend to reside abroad for a period of one year or more.

"Short Term Movement" (formerly described as "Temporary Movement") relates to *persons arriving* who state that they intend to reside in Australia for a period of less than one year; and to *persons departing* who state that they intend to reside abroad for a period of less than one year.

These definitions are in accordance with international usage and do not purport to represent permanent migration as such. For various reasons, the intentions of travellers are subject to subsequent modification and the classification headings used must therefore be accepted as indicating intention only. The numbers so classified since 1st January, 1926, are as follows:—

ARRIVALS AND DEPARTURES CLASSIFIED ACCORDING TO INTENDED RESIDENCE: AUSTRALIA.

Period.	Arrivals.				Departures.			
	Long Term and Permanent Movement.(a)	Short Term Movement.(a)		Total.	Long Term and Permanent Movement.(a)	Short Term Movement.(a)		Total.
		Australian Residents Returning.	Visitors Arriving.			Australian Residents Departing.	Visitors Departing.	
1926-30 ..	224,010	121,395	125,029	b 470,480	103,209	111,714	125,772	c 340,773
1931-35 ..	54,444	84,554	100,325	239,323	71,670	79,426	99,108	d 250,209
1936-40 ..	(e) 88,712	104,870	127,730	321,312	51,006	94,650	132,528	278,184
1941-45 ..	(e) 32,624	11,150	20,151	63,925	22,399	9,163	24,554	56,116
1946-50 ..	457,988	108,736	135,196	701,920	105,968	101,787	141,081	348,836
1951-55 ..	570,090	216,949	240,827	1,027,866	155,509	212,978	245,555	614,042
1955 ..	130,795	52,877	53,565	237,237	35,478	52,180	52,324	139,982
1956 ..	123,822	57,608	66,018	247,448	37,717	51,400	64,333	153,450
1957 ..	118,695	56,017	58,616	233,328	41,073	53,438	60,085	154,596
1958 ..	109,857	59,065	61,342	230,264	44,978	58,888	61,032	164,898
1959 ..	124,022	61,754	68,120	253,896	40,444	64,631	72,030	177,105

(a) For definitions of long term and permanent and short term movement see letterpress above.
 (b) Includes 46 arrivals whose intended period of residence was not stated. (c) Includes 78 departures whose intended length of stay abroad was not stated. (d) Includes 5 departures whose intended length of stay abroad was not stated. (e) Includes evacuees arriving in Australia during the war years as follows:—1936-40, 4,543; 1941-45, 12,586.

(ii) *Long Term and Permanent Movement.* The 1939-45 War caused a large drop, from 1940, in the number of arrivals but after the war the number rose progressively, reaching 174,540 in 1950, the highest on record. As in the case of arrivals, although not to the same extent, the number of departures rose rapidly in the period of immediate post-war re-adjustment of population, but the high figure of 29,806 in 1946 was surpassed in each of the years 1952 to 1959, which were higher than any recorded since the introduction of the method of classification in 1924.

Up to and including 1929, there was a considerable net gain from long term and permanent movement, but during 1930 and 1931 there was a heavy net loss. The loss was very much reduced in 1932, 1933 and 1934, while during the five years up to and including

1939 there was a net gain of more than 28,000. Except for the arrival of evacuees, little movement took place during the war period, but in 1946 a net loss of 11,589 persons occurred, owing in large measure to the departure for the United States of America of Australian wives and children of American servicemen, and, when conditions permitted after the war, the departure of Australians to Papua and New Guinea and of large numbers of war evacuees who were returned to their home countries. Subsequently, the largest net gain recorded was 153,685 in 1950. A net gain of 83,578 was recorded in 1959.

(iii) *Short Term Movement.* Short term movement refers to persons intending residence for periods of less than one year and includes Australian residents and visitors from overseas. Since 1st July, 1947, it also includes Australian defence personnel irrespective of intended length of residence. Although considerable in number, the short term movement is of little significance from the point of view of population growth, as it represents principally the movement of people travelling on business or for pleasure.

3. *Extent of Journey.*—Since 1st January, 1945, the journeys undertaken by passengers have been recorded for Australian oversea migration statistics in two ways: (a) according to country of embarkation or disembarkation and (b) according to country of last or intended future residence.

Detailed statistics of oversea journeys are published in the annual bulletin, *Demography*.

4. *Nationality.*—From 1st July, 1924, to 30th June, 1948, nationality of oversea passengers was recorded as "British" or "Alien" only. Racial origin was also recorded and as the particulars of racial origin stated by passengers closely reflected their nationalities and made it possible to present much more detail of "nationality" than was possible on the total "Alien" basis, published statistics were confined mainly to those compiled on the detailed basis according to a composite classification of "nationality or race".

This method was superseded on 1st July, 1948, by one in which each passenger's race was recorded as European, Asian, African or Polynesian and nationality, as shown on each passenger's passport or other document of identification, was recorded independently of race. The principal nationalities recorded on this basis for the years 1957 to 1959 are as follows:—

NATIONALITY OF ARRIVALS AND DEPARTURES: AUSTRALIA.

Nationality.	Arrivals.			Departures.			Net Migration.		
	1957.	1958.	1959.	1957.	1958.	1959.	1957.	1958.	1959.
British(a) ..	151,391	163,303	173,891	127,611	134,991	145,366	23,780	28,312	28,525
American (U.S.) ..	7,788	8,272	10,162	7,778	8,150	9,561	10	122	601
Austrian ..	2,009	1,464	2,102	534	743	758	1,475	721	1,344
Chinese ..	1,416	1,524	1,767	1,202	1,004	1,023	214	520	744
Czechoslovak ..	107	102	258	133	140	266	-26	-38	-8
Dutch ..	10,041	9,905	11,168	4,068	4,376	4,549	5,973	5,529	6,619
Estonian ..	14	14	6	18	23	11	-4	-9	-5
French ..	1,948	1,772	1,857	1,888	1,716	1,864	60	56	-7
German ..	6,260	6,796	9,996	2,390	2,968	2,831	3,870	3,828	7,165
Greek ..	7,423	5,548	6,032	816	897	937	6,607	4,651	5,095
Hungarian ..	11,435	779	335	143	309	144	11,292	470	191
Italian ..	18,182	13,974	15,143	3,691	4,312	3,985	14,491	9,662	11,158
Latvian ..	25	24	39	40	30	43	-15	-6	-4
Lithuanian ..	19	9	13	20	50	48	-1	-41	-35
Polish(b) ..	593	1,660	1,847	159	229	175	434	1,431	1,672
Russian(c) ..	1,423	583	996	73	190	197	1,350	393	799
Ukrainian ..	26	22	19	35	96	40	-9	-74	-21
Yugoslav ..	1,395	1,343	1,974	170	244	320	1,225	1,099	1,654
Stateless (so described) ..	5,278	5,785	6,923	257	398	307	5,021	5,387	6,616
Stateless(other)(d) ..	80	26	35	16	10	8	64	16	27
Other ..	6,475	7,359	9,333	3,554	4,022	4,672	2,921	3,337	4,661
Total ..	233,328	230,264	253,896	154,596	164,898	177,105	78,732	65,366	76,791

(a) Irish nationality is included with British for the purpose of this table. (b) Includes "Stateless", who were formerly Polish. (c) Includes "Stateless" who were formerly Russian. (d) Stateless, with former nationality stated but other than Polish or Russian.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

5. **Age Distribution and Conjugal Condition.**—A summary of the age distribution and conjugal condition of arrivals and departures classified as long term and permanent movement during 1959 is as follows:—

LONG TERM AND PERMANENT MOVEMENT(a): AGE DISTRIBUTION AND CONJUGAL CONDITION OF ARRIVALS AND DEPARTURES, AUSTRALIA, 1959.

Age Group (Years).	Arrivals.			Departures.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
AGE DISTRIBUTION.						
0-14	16,319	15,041	31,360	4,425	4,166	8,591
15-44	42,969	35,203	78,172	13,218	11,725	24,943
45-64	5,169	6,326	11,495	2,449	2,799	5,248
65 and over ..	1,180	1,815	2,995	665	997	1,662
Total ..	65,637	58,385	124,022	20,757	19,687	40,444
CONJUGAL CONDITION.						
Never Married ..	41,866	30,685	72,551	12,509	9,781	22,290
Married ..	22,966	24,538	47,504	7,822	8,246	16,068
Widowed ..	492	2,639	3,131	303	1,418	1,721
Divorced ..	313	523	836	123	242	365
Total ..	65,637	58,385	124,022	20,757	19,687	40,444

(a) For definition of long term and permanent movement see para. 2 (i), p. 316.

6. **Occupation.**—The following is a summary of the main occupational groups of males classified to long-term and permanent movement (see para. 2 (i) on p. 316) during 1959:—Arrivals—Rural, fishing and hunting, 3,401; professional and semi-professional, 3,133; administrative, 1,238; commercial and clerical, 5,250; domestic and protective service, 1,555; craftsmen, 14,850; operatives, 6,914; labourers, 6,339; indefinite or not stated, 2,622; not gainfully occupied (mainly children), 20,335; total, 65,637. Departures—Rural, fishing and hunting, 615; professional and semi-professional, 2,028; administrative, 708; commercial and clerical, 2,626; domestic and protective service, 956; craftsmen, 3,913; operatives, 1,366; labourers, 2,357; indefinite or not stated, 390; not gainfully occupied (mainly children), 5,798; total, 20,757.

§ 9. Assisted Migration into Australia.

1. **Joint Commonwealth and States Scheme.**—Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Official Year Book (see No. 38, p. 576). After the outbreak of hostilities in 1939, it was decided to discontinue the grant of assisted passages for the duration of the war.

2. **United Kingdom Free and Assisted Passage Agreements, March, 1946.**—(i) *General.* Resumption of migration was the subject of negotiations between the Commonwealth and United Kingdom Governments towards the end of 1945 and two agreements were signed in March, 1946. These agreements, which came into operation on 31st March, 1947, provided

for free and assisted passages to be granted to British residents desirous of settling in Australia. The Free Passage Agreement was terminated on 28th February, 1955. From 1st April, 1949, the Assisted Passage Agreement continued in operation under renewal from time to time and has again been renewed as from 1st April, 1957.

(ii) *Assisted Passages.* Under the existing financial arrangements, the United Kingdom Government's contribution towards the Assisted Passage Scheme is agreed upon when the Agreement is extended, and for the five years from 1st April, 1957, is fixed at a maximum amount of £150,000 sterling a year.

The Assisted Passage Agreement covers five main groups of migrants (and their families), namely, personal nominees, group nominees, Commonwealth nominees. "Bring out a Briton" campaign families and unnominated migrants. *Personal nominees* are migrants sponsored by residents of Australia able to provide suitable accommodation for them (any adult resident of Australia may nominate friends or relatives in the United Kingdom who are eligible to be considered for assisted passages under this agreement). *Group nominees* are recruited on a trade-qualification basis to meet applications lodged by employers and State Governments, who guarantee to provide employment and accommodation for those selected; *Commonwealth nominees* comprise workers selected against known and assessed employment demands in Australia. Migrants in this group can live in hostels established by the Commonwealth Government for up to two years while they are seeking to obtain private accommodation. The Commonwealth nominee scheme was introduced in 1950 in order to reinforce the personal and group nomination schemes. "Bring out a Briton" campaign families are selected to fill employment and accommodation vacancies located by special voluntary committees formed by community effort to stimulate the flow of British migrants who are otherwise unable to obtain sponsorship. *Unnominated migrants* may also be granted assisted passages, even though they are unable to arrange personal nominations and are not occupationally qualified for approval under other existing assisted passage selection schemes. Families must possess a minimum of £500 sterling for transfer to Australia and must be prepared to make their own accommodation arrangements after arrival; these are known as "Nest-Egg" migrants. Single persons must possess £25 sterling and married couples without children £50 sterling. Temporary accommodation if required is provided by the Commonwealth Government.

Although the Commonwealth is not generally prepared to accept single persons or married persons without children if they have reached their forty-sixth birthday before the date of sailing, the parents or close relatives of intending migrants or of persons established in Australia may, if otherwise acceptable under the scheme, be granted passages irrespective of age. Each migrant of 19 years of age and over is required to contribute £10 sterling towards the cost of his or her passage, while persons under 19 years travel free. Apart from this contribution and that made annually by the United Kingdom Government, the cost of the passages is borne by the Commonwealth Government.

(iii) *Number of Arrivals.* The numbers of British migrants who came to Australia under the Free and Assisted Passage Agreement during the years 1947 to 1959 are given in the following table:—

UNITED KINGDOM FREE AND ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS.(a)

Period.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	A.C.T.	Commonwealth Nominees.	Total.
1947-52 ..	41,756	48,985	21,176	12,407	16,601	6,242	2,358	27,367	176,892
1953 ..	3,890	3,962	1,835	1,072	1,969	485	110	372	13,695
1954 ..	3,046	3,199	1,872	1,406	2,067	425	97	6,605	18,717
1955 ..	4,743	6,068	2,731	1,756	2,219	672	119	7,389	25,697
1956 ..	4,231	5,516	2,471	1,814	2,231	602	189	7,082	24,136
1957 ..	4,994	5,184	3,219	2,197	1,774	749	220	6,665	25,002
1958 ..	5,921	6,392	3,568	3,239	2,400	930	199	9,338	31,987
1959(b) ..	4,377	5,130	2,460	3,500	1,674	732	223	13,518	31,614
Total, 1947-59	72,958	84,436	39,332	27,391	30,935	10,837	3,515	78,336	347,740

(a) Includes child migrants as shown in para. 3 (iii) below. (b) Preliminary. (c) Includes 3,444 persons, comprised of unnominated single persons and married couples without children.

3. *Child Migration from the United Kingdom.*—(i) *General.* Since the commencement of the assisted passage schemes in 1947, the immigration of unaccompanied children and youths from the United Kingdom has been encouraged under the auspices of approved voluntary organizations. The organizations at present introducing child migrants include the Fairbridge Farm Schools, Dr. Barnardo's Homes, the Big Brother Movements of New South Wales and Tasmania, and the Northcote Children's Emigration Fund. All the principal religious denominations are also participating in the scheme. There are 34 approved Homes in Australia caring for 806 child migrants.

(ii) *Financial Assistance.* The United Kingdom Government contributes 12s. 6d. a week for each child and in addition the respective State Governments contribute amounts varying from 7s. a week in New South Wales to £1 3s. 3d. in Western Australia. The Commonwealth Government pays the normal child endowment of 10s. a week. In addition, the Commonwealth Government and the State Government concerned may contribute towards the capital expenditure on accommodation for child migrants.

(iii) *Number of Arrivals.* From the beginning of 1947 to the end of 1959, a total of 5,435 British children and youths arrived under the sponsorship of voluntary organizations. New South Wales took 3,264, Western Australia 1,264, Victoria 494 and the other three States 413. These children were brought to Australia under the United Kingdom Free and Assisted Passage Scheme and are included in the figures shown in the table on page 319.

4. *Assisted Passage Scheme, Eire.*—In November, 1948, the Commonwealth Government decided to grant limited financial assistance to natural-born citizens of Eire normally resident in the British Isles, and to natural-born British citizens resident in Eire, who wished to emigrate to Australia and who were duly selected. This scheme applied only to prospective settlers and their dependants who were not eligible for assisted passages under the agreement with the United Kingdom Government (*see para. 2 above*). The maximum amount granted towards an adult passage was £30 sterling, with varying amounts for children according to age.

It was not essential for an applicant for a passage to be nominated by a friend or relative in Australia before the question of granting financial assistance was considered. Single men and women who were eligible under the scheme were readily accepted. Families, on the other hand, were accepted only if they could produce evidence of having secured accommodation in Australia, or, in the case of nominated migrants, a guarantee of accommodation by their sponsors. Up to the end of 1959, 3,360 migrants had arrived under this scheme.

The assisted passage scheme for citizens of Eire was cancelled on 31st March, 1959, and as from 1st April, 1959, the General Assisted Passage Scheme (*see para. 15 below*) has been applied to nationals of Eire.

5. *Maltese Migration.*—On 31st May, 1948, the Commonwealth Government and the Government of Malta entered into an agreement under which both Governments grant financial assistance towards the passage costs of selected Maltese migrants. The Commonwealth contribution is £30 sterling per adult, with proportionate amounts for children, and the Government of Malta contributes an amount at least equal to this sum. This agreement has been extended from time to time. On 13th August, 1957, a new agreement, which was acknowledged to have come into effect as from 1st July, 1956, was signed between the two Governments. This agreement, which was to be of 2 years' duration, was extended to 30th June, 1959, and subsequently to 30th June, 1960.

From its inception until 31st December, 1959, a total of 24,841 Maltese had arrived under this scheme. Up to the end of 1959, 234 Maltese children had been brought out to approved institutions in Australia. These are included in the number shown above.

6. *Empire and Allied Ex-Servicemen's Scheme.*—On 26th May, 1947, the Commonwealth Government implemented a scheme under which assistance was given to the passage costs of Empire ex-servicemen and their dependants not covered by the Free and Assisted Passage Scheme (*see para. 2 above*) and of ex-servicemen of the U.S.A. Later, eligibility was extended to ex-servicemen and resistance workers of the Netherlands, Norway, France, Belgium and Denmark. The amount of assistance for an adult was £30 sterling and amounts for children varied according to age. The scheme was discontinued as from 30th June, 1955.

During its currency a total of 21,333 migrants came to Australia under the scheme. The majority of these (16,830) were Dutch.

7. Displaced Persons Scheme.—On 21st July, 1947, the Commonwealth Government entered into an agreement with the International Refugee Organization to settle displaced persons in Australia. Although the International Refugee Organization concluded its activities in 1951, the Commonwealth agreed to receive those displaced persons already accepted for migration, but whose passages had still to be arranged. A total of 170,700 persons settled in Australia under this scheme. Since the cessation of the Displaced Persons Scheme, substantial numbers of refugees have migrated to Australia under both assisted and full-fare arrangements (*see para. 14*).

8. Netherlands Migration.—A migration agreement concluded between the Commonwealth and Netherlands Governments in February, 1951, came into operation on 1st April of that year. On 1st August, 1956, the agreement was extended for a period of 5 years with retroactive effect as from 1st April, 1956. This superseded an earlier arrangement in 1946, between the Commonwealth and the Netherlands Emigration Foundation (*see Official Year Book No. 39, p. 567*).

The migrant is required to contribute towards his passage costs in accordance with a formula devised by the Netherlands Government. The balance is met by the Commonwealth and Netherlands Governments and the Intergovernmental Committee for European Migration. The Commonwealth Government's contribution is now equivalent to \$110 a head.

The provision of shipping is the responsibility of the Netherlands Government. The Commonwealth arranges for the reception of migrants and their after-care and assists in the securing of employment. Families who have not obtained private accommodation prior to arrival may be temporarily accommodated in an Immigration Centre. When the breadwinner is placed in employment, he proceeds either to employer-found accommodation or a Commonwealth Hostel. These arrangements continue until the family can secure its own accommodation, or vacancies enable a family to be united in a hostel.

Up to the end of December, 1959, 51,449 Dutch migrants had settled here under the Netherlands–Australia Migration Agreement.

9. Italian Migration.—On 29th March, 1951, the Commonwealth and Italian Governments entered into a migration agreement effective for a period of 5 years, under which certain selected Italian migrants were assisted to Australia. The agreement came into force on 1st August, 1951.

The agreement was temporarily suspended at the end of 1952, but in March, 1954 provision was made for assisted passages to be granted to certain relatives and fiancées of migrants who had previously settled in Australia under the agreement. On 1st December, 1954, the agreement proper was re-opened and was extended to 31st July, 1959. It has since been further extended, by an exchange of letters, to 31st July, 1960. At present, the Commonwealth contributes the equivalent of \$100 towards the fare of each migrant. The balance of passage costs is contributed by the migrants themselves, the Italian Government and the Intergovernmental Committee for European Migration. Up to 31st December, 1959, arrivals under this agreement totalled 38,947 persons.

As the Italian agreement does not provide for the acceptance of nationals other than Italian, a special quota is determined annually for the selection of suitable refugees from other nationals living in Italy. Arrivals under this "Non-Italian National Quota" (N.I.N.Q.) totalled 4,830 between 1st July, 1955, and 31st December, 1959.

10. Migration from Trieste.—In 1953, arrangements were made for the migration of refugees from Trieste. These arrangements continued until what was formerly the Free Territory of Trieste became part of the Italian Republic. Since then, migrants from Trieste have proceeded under the Italian Agreement. Altogether, 4,745 Triestians arrived in Australia as assisted migrants up to 30th June, 1955. The Commonwealth made a contribution

to passage costs at the same rate as for other European migrants and the balance was made up by contributions from the Intergovernmental Committee for European Migration and the Italian Government.

11. German Migration.—On 29th August, 1952, a migration agreement was signed between the Commonwealth Government and the Government of the Federal Republic of Germany. This was somewhat similar to the agreements concluded with the Netherlands and Italy and was effective for a period of 5 years. The agreement was renewed on 27th August, 1958, to be effective from 29th August, 1957. The Commonwealth Government's contribution towards passage costs is the equivalent of \$100 a head. The migrant may be required to pay a small contribution and the balance of passage costs is paid by the Intergovernmental Committee for European Migration. The ICEM payment is derived in part from a lump sum contribution which the Government of the Federal Republic of Germany makes annually to the Committee. Arrivals of German assisted migrants numbered 50,122 to the end of December, 1959.

12. Austrian Migration.—Late in 1952, arrangements were made with the Intergovernmental Committee for European Migration for the migration to Australia of a small number of selected rural and other workers and their families from Austria. Later, these arrangements were extended to cover greater numbers and wider categories of migrants. The Commonwealth contributes an amount equivalent to \$100 a head towards the passage costs of Austrian migrants. The Austrian Government, the Intergovernmental Committee for European Migration and the migrants themselves also contribute towards passage costs. Reception arrangements, temporary accommodation, after-care and placement in employment are undertaken by the Commonwealth. Under these arrangements, 14,059 Austrians arrived in Australia up to 31st December, 1959.

13. Greek Migration.—An arrangement similar to the Austrian one was made with the Intergovernmental Committee for European Migration late in 1952. The Commonwealth's contribution and the arrangements for reception, accommodation, employment and after-care are the same as for Austrian migrants. Under this arrangement, 25,061 Greek assisted migrants had settled in Australia up to 31st December, 1959.

14. Refugee Migration.—Following the cessation of the Displaced Persons Scheme in 1951, Australia has accepted for permanent resettlement under assisted passage arrangements 24,200 refugees of European origin to 31st December, 1959. Included in this figure are 13,933 Hungarians who have been granted asylum in Australia since the uprising in October, 1956. The Commonwealth Government granted a total of £A130,000 for the relief of Hungarian refugees and, in addition, contributed the equivalent of \$100 a head to the passage costs of those refugees who were granted assisted passages. In the post-war period up to 31st December, 1959, Australia has received 246,380 refugees under assisted passage and full fare arrangements.

Australia continues to accept refugees—mainly Yugoslavs and Hungarians—from countries of temporary asylum under the assisted passage schemes applicable to those countries, as well as under full fare arrangements.

15. General Assisted Passage Scheme.—To encourage the migration of persons from the United States of America, Switzerland, Denmark, Norway, Sweden and Finland, the Commonwealth Government on 10th September, 1954, introduced an assisted passage scheme for nationals of these countries. Later, the scheme was extended to cover certain British subjects living in a number of countries other than the United Kingdom and to nationals of Eire, Belgium and France. Up to 31st December, 1958, the Commonwealth made a contribution of £37 10s. sterling per adult and *pro rata* amounts for children according to the fare paid, but this was increased to £57 2s. 10d. sterling (\$160) per adult and *pro rata* for children in respect of migrants approved on and after 1st January, 1959. To the end of December, 1959, 11,432 migrants had arrived in Australia under this scheme.

16. Summary of Arrivals of Assisted Migrants.—The following table shows, for the period January, 1947, to December, 1959, the number of assisted migrants who arrived in Australia under the various schemes.

NUMBER OF ARRIVALS UNDER ASSISTED PASSAGE SCHEMES.

Scheme.	1947-55.	1956.	1957.	1958.	1959.	Total 1947-59.
1. BRITISH—						
United Kingdom—						
Personal and Group						
Nominees	190,925	16,978	18,276	22,583	17,223	265,985
Commonwealth						
Nominees	41,733	7,082	6,665	9,338	14,366	79,184
Others	2,343	76	61	66	25	2,571
Total United Kingdom	235,001	24,136	25,002	31,987	31,614	347,740
Maltese	21,384	1,080	467	840	1,070	24,841
Others	3,117	326	294	224	60	4,021
Total British	259,502	25,542	25,763	33,051	32,744	376,602
2. DUTCH—						
Commonwealth Nominees	19,325	8,721	5,776	5,787	6,861	46,470
Others	2,410	1,083	645	411	430	4,979
Total Dutch	21,735	9,804	6,421	6,198	7,291	51,449
3. GERMAN—						
Commonwealth Nominees	26,263	4,116	3,817	4,417	8,118	46,731
Others	1,795	420	660	350	166	3,391
Total German	28,058	4,536	4,477	4,767	8,284	50,122
4. AUSTRIAN—						
Commonwealth Nominees	6,240	3,286	1,547	1,049	1,576	13,698
Others	158	69	65	39	30	361
Total Austrian	6,398	3,355	1,612	1,088	1,606	14,059
5. GENERAL ASSISTED PASSAGE SCHEME(a)	418	1,814	2,182	2,686	4,332	11,432
6. REFUGEES—						
Displaced Persons ..	170,700	..	..	..	..	170,700
Hungarians(b) .. ..	..	331	11,751	1,552	299	13,933
Ex-Austria(c)	19	581	1,816	1,448	1,573	5,437
Ex-Italy(c)	272	121	783	917	2,737	4,830
Total Refugees	170,991	1,033	14,350	3,917	4,609	194,900
7. ALLIED EX-SERVICEMEN(d)	21,333	..	..	..	..	21,333
8. POLES FROM UNITED KINGDOM	1,457	..	..	..	..	1,457
9. ITALIANS—						
Commonwealth Nominees	17,359	4,388	3,454	1,197	2,165	28,563
Others	1,257	1,397	1,249	939	797	5,639
Triestians	4,745	..	..	..	..	4,745
Total Italians	23,361	5,785	4,703	2,136	2,962	38,947
10. GREEK—						
Commonwealth Nominees	14,953	1,545	1,080	167	889	18,634
Others	230	1,543	1,773	1,630	1,251	6,427
Total Greek	15,183	3,088	2,853	1,797	2,140	25,061
11. SPANISH .. ..	..	..	..	159	169	328
Total Assisted ..	548,436	54,957	62,361	55,799	(e) 64,137	(e) 785,690

(a) General Assisted Passage Scheme, mainly Swiss, Danish, Swedish, Norwegian, Finnish, French and U.S. Americans. (b) Hungarians from all countries of refuge, Austria, Italy, Switzerland, &c. (c) Mostly Yugoslavs and Stateless. (d) Mostly Dutch. (e) Preliminary.

NOTE.—(i) All arrivals indicated in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on (1) ships under charter to the Department of Immigration, (2) ships and aircraft under charter to the Intergovernmental Committee for European Migration and (3) normal commercial shipping and airlines.

(ii) The arrivals under these schemes include a small number of nationals of other countries and stateless persons.

From the earliest years of assisted migration to the end of 1959, a total of 1,854,001 assisted migrants arrived in Australia.

§ 10. The Regulation of Immigration into Australia.

1. **Powers and Legislation of the Commonwealth.**—(i) *Constitutional.* Under section 51 (xxvii.) and (xxviii.) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens, and the influx of criminals.

(ii) *Legislation.* Immigration into the Commonwealth is regulated by the Migration Act 1958 which came into force on 1st June, 1959, and repealed the Immigration Act 1901–1949 and Aliens Deportation Act 1948.

Any immigrant entering Australia after the commencement of the Act without having been granted an “entry permit” and without being within an exempted class, is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries and seamen whose ships are in Australian ports. “Immigrant” includes persons entering for temporary stay.

Entry permits are normally granted at ports of entry by means of stamps in travellers’ passports or equivalent documents, without any form of application having to be completed. Temporary entry permits are granted to persons who have been authorized to enter for a limited period only. Persons eligible to enter for permanent residence are granted permits of unrestricted validity. Persons who are refused entry permits must be kept on board the ship on which they arrive; otherwise, the shipping company is liable to a fine of £500.

The Act abolishes the “Dictation Test” as a means of excluding or deporting ineligible persons. Other deportation powers which were contained in the repealed legislation were largely re-enacted, though with some revision.

The Act also revises the law relating to the emigration of aborigines and children, repealing the Emigration Act 1910.

The new Act does *not* affect passport or visa requirements for entry to Australia. All persons who, prior to the 1958 Act, had been required before embarkation to obtain visas, or other kinds of provisional authority to proceed to Australia, still have to obtain them. Likewise, persons who have *not* had to produce prior authority to enter Australia, before being given passages to Australia, do *not* have to obtain them solely as a result of the new Act. Persons previously allowed to enter Australia without production of passports—notably British people arriving from New Zealand—are still able to do so.

The Immigration (Guardianship of Children) Act 1946–1952 provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia other than in the charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the child welfare authorities in each State who, as the Minister’s delegates under the Act, supervise the welfare of each “immigrant child”.

The Aliens Act 1947–1952 provides that a register of aliens shall be maintained for every State and Territory of the Commonwealth. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify the Department of any change of address, occupation or employment, and of their marriage. The Act also provides that consent must be obtained before an alien may change his surname.

2. **Conditions of Immigration into Australia.**—(i) *Persons of Non-European Race.* In pursuance of established policy, the general practice is not to permit persons of non-European descent to enter Australia for the purpose of settling permanently, but exceptions are made in favour of the spouses and children of Australian citizens and other British subjects resident in Australia, and also for highly qualified and distinguished persons. Special provision exists for the temporary admission of non-Europeans who are bona fide merchants, students, tourists and numerous other categories. They are permitted to enter and remain in Australia under temporary entry permits while they retain their status.

(ii) *Persons of European Race.* Maltese, Cypriots and aliens of European race desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian Oversea Post. Their admission under the present policy is subject to their compliance with the Commonwealth's requirements in regard to health, character, freedom from security risk and general suitability as settlers.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following officers:—

- (a) In Australia—The Secretary, Department of Immigration, Canberra, Australian Capital Territory, and Commonwealth Migration Officers in the capital cities of the various States;
- (b) In Great Britain—the Chief Migration Officer, High Commissioner's Office, Australia House, Strand, London;
- (c) In other British Commonwealth countries—The High Commissioner for Australia;
- (d) In Holland, Italy, Germany, Greece, Austria, Denmark and Hong Kong—the Chief Migration Officer or Migration Officer in the capital city of each of those countries;
- (e) In other countries where Australia is represented—the Secretary, Australian Embassy, Legation or Consulate.

For details of Australian representatives in the British Commonwealth and other countries see the section entitled "Australian Representation Abroad: Oversea Representation in Australia" in Chapter XXX.

3. *Nationality of Persons Arriving.*—For details of the nationality of persons who arrived in Australia during the years 1957 to 1959, see page 317.

§ 11. Passports.

Under the Passports Act 1920, it was compulsory for each person over 16 years of age leaving Australia to be in possession of a passport or other document authorizing his departure. This Act has now been superseded by the Passports Act 1938–1948, which repealed the compulsory provisions. The Act also applies to the External Territories of Australia.

Although it is not compulsory for Australians to obtain a passport when leaving Australia, it is desirable in their own interests that they should have one in order to establish their identity and nationality overseas. A passport is necessary for admission into most countries, and the holder of an Australian passport also has no difficulty in landing on return to Australia. The charge for an Australian passport is £1.

As a result of the Nationality and Citizenship Act 1948–1958 (see § 12 below) and the enactment of similar citizenship legislation in other British Commonwealth countries, it is now the general rule that Australian passports are issued only to Australian citizens. Citizens of other British Commonwealth countries secure passports from their own High Commissioners in Australia. Australian citizens abroad may secure passports only from Australian representatives.

Diplomatic and official passports are issued to members of the Australian diplomatic service and other Government officials proceeding abroad on official business.

Applicants for passports are required to produce evidence of their identity and nationality (e.g., birth certificates).

§ 12. Citizenship and Naturalization.

1. **Commonwealth Legislation.**—The Nationality and Citizenship Act 1948 commenced on Australia Day (26th January), 1949 and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of "Australian Citizen". In this respect, the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are declared to be British subjects. For details of the Act, see Official Year Book No. 42, page 619.

2. **Certificates Granted.**—(i) *Australia.* The following tables show the number of certificates granted during 1958 and the number of persons affected by these certificates. The certificate covers the person being naturalized and his/her children under the Nationality and Citizenship Act 1948–1958.

NATURALIZATION: CERTIFICATES GRANTED, AUSTRALIA, 1958.

PREVIOUS NATIONALITIES OF RECIPIENTS.

Nationality.	Certificates Granted.	Persons Affected by Certificates.	Nationality.	Certificates Granted.	Persons Affected by Certificates.	Nationality.	Certificates Granted.	Persons Affected by Certificates.
Albanian ..	66	68	Egyptian ..	36	46	Mexican ..	1	1
American (U.S.) ..	54	56	Estonian ..	756	828	Norwegian ..	72	78
Argentinian ..	3	3	Filippino ..	7	9	Peruvian ..	2	2
Australian Protected Person ..	78	140	Finnish ..	49	54	Polish ..	6,275	7,973
Austrian ..	298	330	French ..	140	164	Portuguese ..	34	39
Belgian ..	27	32	German ..	2,032	2,329	Romanian ..	252	297
Brazilian ..	2	2	Greek ..	1,327	1,581	Russian ..	834	1,002
British Protected Person ..	6	6	Hungarian ..	1,559	1,859	Spanish ..	77	83
Bulgarian ..	88	104	Indonesian ..	10	19	Swedish ..	36	38
Burmese ..	1	1	Iranian ..	7	9	Swiss ..	101	108
Byelorussian ..	40	55	Israeli ..	93	107	Syrian ..	7	10
Chinese ..	180	200	Italian ..	7,662	9,937	Turkish ..	12	14
Czechoslovak ..	1,088	1,248	Japanese ..	65	67	Ukrainian ..	2,412	3,020
Danish ..	84	92	Jordanian ..	7	9	Yugoslav ..	2,722	3,297
Dutch ..	4,345	5,973	Latvian ..	2,436	2,790	Stateless ..	916	1,071
			Lebanese ..	326	425			
			Lithuanian ..	1,176	1,356	Total ..	37,801	46,932

COUNTRIES IN WHICH RECIPIENTS(a) ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING AUSTRALIA OR EXTERNAL TERRITORIES.

Country.	Certificates Granted.	Country.	Certificates Granted.	Country.	Certificates Granted.	Country.	Certificates Granted.
Afghanistan ..	5	Estonia ..	28	Latvia ..	44	South Africa ..	14
Africa ..	164	Finland ..	40	Lebanon ..	348	South America ..	22
Albania ..	28	Fiji ..	1	Lithuania ..	23	Spain ..	48
Arabia ..	2	France ..	627	Luxemburg ..	5	Sweden ..	127
Argentina ..	23	Germany ..	15,891	Malaya ..	13	Switzerland ..	253
Austria ..	1,894	Greece ..	1,046	Morocco ..	3	Syria ..	7
Belgium ..	228	Holland ..	3,978	New Caledonia ..	15	Thailand ..	3
Brazil ..	14	Hong Kong ..	20	New Guinea ..	75	Turkey ..	17
Bulgaria ..	20	Hungary ..	216	New Hebrides ..	10	United Kingdom ..	435
Burma ..	3	India ..	33	New Zealand ..	16	Ukraine ..	42
Canada ..	21	Indonesia ..	315	Norway ..	77	U.S. of America ..	98
Ceylon ..	7	Iran ..	27	Pakistan ..	2	U.S.S.R. ..	29
China ..	737	Iraq ..	4	Panama ..	2	Yugoslavia ..	481
Cyprus ..	9	Israel ..	279	Philippines ..	105		
Czechoslovakia ..	233	Italy ..	8,500	Poland ..	237		
Denmark ..	147	Japan ..	74	Portugal ..	20		
Egypt ..	576	Jordan ..	3	Romania ..	28		
Eire ..	2	Korea ..	2	Singapore ..	5	Total ..	37,801

(a) Excludes children affected by grant of certificates.

(ii) *States.* The number of persons affected by certificates granted in 1958 in respect of residents of the various States and Territories were as follows:—New South Wales, 16,524; Victoria, 12,402; Queensland, 4,932; South Australia, 7,097; Western Australia, 4,063; Tasmania, 1,154; Northern Territory, 123; Australian Capital Territory, 365; External Territories, 272; Total, 46,932.

§ 13. Population of External Territories.

Ordinances of the individual external territories under the control of Australia, namely; Norfolk Island, Papua, the Trust Territory of New Guinea, and the Trust Territory of Nauru, provide for a Census of the non-indigenous population to be taken by the Commonwealth Statistician on the day prescribed for the taking of a Census in the Commonwealth of Australia. The following table shows the population of each of these Territories at the Census of 30th June, 1954, and the estimated population at 30th June, 1959.

The Commonwealth of Australia assumed control of the Cocos (Keeling) Islands on 23rd November, 1958, and of Christmas Island on 1st October, 1958. An estimate of these populations at 30th June, 1959 is included in the table below.

POPULATION: EXTERNAL TERRITORIES.

(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Census, 30th June, 1954.			Estimate, 30th June, 1959.
	Males.	Females.	Persons.	Persons.
Christmas Island .. .. .	..	..	..	2,908
Cocos (Keeling) Islands .. .. .	..	..	..	651
Norfolk Island	478	464	942	1,048
Papua	3,867	2,446	6,313	8,798
Trust Territory of New Guinea	7,201	4,241	11,442	15,270
Trust Territory of Nauru	1,269	376	1,645	2,068

Particulars concerning the indigenous populations of the external territories will be found in Chapter V.—The Territories of Australia.

§ 14. The Aboriginal Population of Australia.

In Official Year Book No. 17, pages 951–61, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pages 914–6 of Official Year Book No. 22, particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–96 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland but are mostly in Western Australia, Queensland and the Northern Territory. Particulars of the number in each State and Territory at the Census of 30th June, 1954, are shown in the following table. Full-blood aborigines in employment or living in proximity to settlements were enumerated at the census, while estimates of the total numbers, including those living in the nomadic state, were furnished by the authorities responsible for native welfare. Half-caste aborigines are included in the numbers of the population and are of course enumerated at the census. The figures shown for Queensland are exclusive of Torres Strait Islanders.

ABORIGINAL POPULATION, 30th JUNE, 1954.

State or Territory.	Full-blood.				Half-caste. (Enumerated at the Census.)			Total, Full-blood and Half-caste.
	In Employment or Living in Proximity to Settlements.(a)			Esti- mate of Total Num- ber.(b)				
	Males.	Females.	Persons.		Males.	Females.	Persons.	
New South Wales ..	769	634	1,403	a 1,403	5,509	5,301	10,810	12,213
Victoria ..	73	68	141	a 141	618	636	1,254	1,395
Queensland ..	3,921	3,347	7,268	9,579	4,447	4,434	8,881	18,460
South Australia ..	396	344	740	c 2,500	1,279	1,193	2,472	4,972
Western Australia ..	3,540	3,139	6,679	d 10,195	3,024	2,996	6,020	16,215
Tasmania ..					50	43	93	93
Northern Territory ..	5,167	4,964	10,131	e 15,500	823	834	1,657	17,157
Aust. Cap. Territory ..	1		1	a 1	99	73	172	173
Total ..	13,867	12,496	26,363	39,319	15,849	15,510	31,359	70,678

(a) Enumerated at the Census of 30th June, 1954.

(b) Furnished by the native welfare authorities (see text hereunder).

(c) Approximate, see text hereunder.

(d) Revised estimates.

According to the latest information available from native welfare authorities, there appears to have been little real change since 1947 in the total numbers of aborigines in Australia. They appear to have decreased in some States and to have increased in others and especially in the Northern Territory. But exact numbers are not yet known and estimates have recently been revised. Even by Census and special surveys it is difficult to obtain accurate counts of those aborigines who live on the fringe of settlements. Nomadic habits still persist to some extent among "settled" natives and it is still very difficult to obtain reliable estimates of the numbers of aborigines who inhabit extensive districts remote from settlement. These are in an area exceeding one million square miles of hinterland embracing outlying parts of three States and of the Northern Territory.

Under these circumstances, the general Census of Population is not a suitable means of obtaining records of the total number of aborigines in Australia. The only available source of estimates is the administrative records of various welfare authorities supplemented by observations of field officers and others who traverse the remote hinterland.

The estimate of number of full blood aborigines in South Australia shown in the above table is a rough approximation derived from the Annual Report of the Aborigines' Protection Board of that State. The estimate of 10,195 for Western Australia as at 30th June, 1954, comprises 8,195 recorded by the Commissioner of Native Welfare for the settled districts, and his revised estimate of 2,000 "nomad natives beyond the confines of civilization". This latter figure was referred to as follows in the Annual Report of the Commissioner of Native Affairs for 1958-59:—"It would be impossible, of course, to estimate the number of desert natives who are now living beyond the confines of civilization, but it is certain that there cannot be more than approximately 2,000". Previous estimates were reduced from 10,000 to 6,000 in 1948 and to 2,000 in 1959 as the result of fuller information and the Commissioner's Report indicated that the earlier estimates had been greatly exaggerated.

As the result of welfare action taken by the Administration in the Northern Territory 15,439 aborigines were gazetted as wards under the Welfare Ordinance on 13th May, 1957. On the basis of this number with adjustments for nomadic and other aborigines, the Administration estimated that there were 15,995 aborigines of full blood in the Northern Territory on 31st December, 1956. For comparative purposes a figure of approximately 15,500 is adopted in the above table as at 30th June, 1954.

CHAPTER X.

VITAL STATISTICS.

NOTE.—The tables in this chapter are confined to the principal characteristics of vital statistics for Australia and relate, in the main, to the year 1958 except for the totals of marriages, births, deaths and infant deaths, for which it has been possible to include figures for 1959. Comparisons have been restricted, in general, to the individual years 1955 to 1959 and the five-year periods 1931–35 to 1951–55, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*.

Figures of births and deaths for Australia throughout are exclusive of full-blood aboriginals.

§ 1. Provisions for Registration and Compilation of Statistics.

In Australia, vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853 and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration in respect of the Northern Territory having been taken over from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

In the Australian Capital Territory and the Northern Territory, information concerning a birth is required to be supplied within 21 days, in South Australia in 42 days, and in all other States 60 days is allowed. In all States, however, provision has been made for the late registration of births. For the registration of a death, the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, the Northern Territory and the Australian Capital Territory, 21 days in Victoria and 30 days in New South Wales and Queensland. Provision is made in all States and Territories for the celebration of marriages by ministers of religion registered for that purpose with the Registrar-General (the Government Statist in Victoria) or the Principal Registrar of Births, Deaths and Marriages of the State or Territory and also by certain civil officers. In all cases the celebrant, whether minister of religion or civil officer, is required to register particulars of the parties married with the Registrar-General's Office. In Victoria, Western Australia, the Northern Territory and the Australian Capital Territory, registration of a marriage is required immediately following the ceremony, in Tasmania and South Australia within 7 days and in New South Wales and Queensland within 30 days.

For all States except Tasmania, the registration of stillbirths is compulsory. Western Australia was the first State to introduce compulsory registration in 1908, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, Northern Territory in 1949, Victoria in 1953, and Queensland in 1959. There is no statutory requirement in Tasmania for the registration of stillbirths, but provision is made for voluntary registration and it appears likely that nearly all such births are notified to the Registrar-General. In this chapter, stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and forwarded, through the Deputy Commonwealth Statistician in each State, and direct from the Principal Registrars in the two Territories, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

§ 2. Marriages.

NOTE.—See NOTE at the beginning of this chapter.

1. **Number of Marriages.**—The number of marriages registered in Australia during the year ended 31st December, 1959, was 74,363, giving a rate of 7.39 per 1,000 of the mean population for the year. A summary of the number of marriages registered in each State and Territory in five-year periods from 1931–35 to 1951–55 and for each of the years 1955 to 1959, is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1860 to 1959 appears on page 335 of this issue.

MARRIAGES.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1931–35 ..	18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480
1936–40 ..	25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541
1941–45 ..	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–50 ..	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55 ..	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
ANNUAL TOTALS.									
1955 ..	27,645	20,056	10,098	6,226	5,145	2,600	151	251	72,172
1956 ..	27,313	20,137	9,934	6,277	5,080	2,601	160	278	71,780
1957 ..	28,767	20,239	10,271	6,581	4,897	2,507	178	256	73,696
1958 ..	28,554	20,649	10,255	6,505	5,038	2,475	201	324	74,001
1959 ..	28,201	20,456	10,581	6,614	5,387	2,567	205	352	74,363

2. **Crude Marriage Rates.**—The crude marriage rates for each State and Territory from 1931–35 to 1959 are given hereunder:—

CRUDE MARRIAGE RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931–35 ..	7.20	7.02	7.35	6.83	7.58	7.19	5.92	5.74	7.16
1936–40 ..	9.29	9.52	8.80	9.65	9.49	9.25	13.28	7.22	9.35
1941–45 ..	9.97	9.86	10.04	10.61	9.74	8.61	7.18	7.57	9.94
1946–50 ..	9.90	9.72	9.41	9.87	10.01	9.56	9.39	9.36	9.77
1951–55 ..	8.41	8.34	7.92	8.11	8.44	8.35	9.21	(b)8.22	8.29
ANNUAL RATES.									
1955 ..	7.92	7.94	7.54	7.59	7.81	8.22	8.86	(b)7.74	7.84
1956 ..	7.68	7.73	7.27	7.40	7.50	8.07	8.94	(b)8.01	7.61
1957 ..	7.94	7.57	7.38	7.53	7.08	7.59	9.50	(b)6.80	7.64
1958 ..	7.73	7.54	7.25	7.25	7.14	7.33	10.45	7.88	7.51
1959 ..	7.50	7.27	7.36	7.18	7.49	7.45	10.01	7.55	7.39

(a) Number of marriages per 1,000 of mean population. (b) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951–55, 8.20; 1955, 7.67; 1956, 7.86; 1957, 6.74.

3. **Marriage Rates based on Marriageable Population.**—As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over,

the corresponding rates have been calculated for Australia for the eight census periods to 1953-55. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows:—

PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA.

Period.				Rate.(a)	Period.				Rate.(a)
1880-82	..	..	..	48.63	1920-22	..	..	..	55.97
1890-92	..	..	..	44.04	1932-34	..	..	..	42.88
1900-02	..	..	..	42.14	1946-48	..	..	..	71.24
1910-12	..	..	..	50.12	1953-55	..	..	..	65.32

(a) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

4. **Crude Marriage Rates of Various Countries.**—The following table gives the crude marriage rates for Australia in comparison with the rates for various other countries.

CRUDE MARRIAGE RATES(a): VARIOUS COUNTRIES.

Country.					Country.				
	1921-25.	1926-30.	1931-35.	1958.		1921-25.	1926-30.	1931-35.	1958.
Yugoslavia ..	10.6	9.5	7.8	9.2	Switzerland ..	7.7	7.5	7.7	7.7
Japan ..	8.8	8.0	7.6	9.0	United Kingdom ..	7.7	7.5	7.9	7.6
Union of South Africa (b) ..	8.0	9.3	9.4	c 8.8	Australia ..	8.0	7.5	7.2	7.5
Spain ..	7.3	7.3	6.5	8.5	Belgium ..	10.6	9.1	7.8	7.4
United States of America ..	10.6	9.9	9.2	8.3	Italy ..	9.0	7.3	6.8	7.4
Netherlands ..	8.2	7.7	7.2	8.2	Denmark ..	7.9	7.8	8.7	7.2
New Zealand(d) ..	8.0	7.6	7.3	8.0	Finland ..	7.1	7.2	7.2	7.2
Austria ..	9.6	7.5	6.8	7.9	France ..	9.5	8.2	7.4	7.0
Canada ..	7.3	7.3	6.4	7.9	Sweden ..	6.3	6.7	7.3	6.8
					Norway ..	6.3	6.1	6.5	6.7
					Ireland, Republic of	4.9	4.6	4.6	5.3

(a) Number of marriages per 1,000 of mean or mid-year population. (b) White population only. (c) 1957. (d) Includes Maoris.

5. **Age and Conjugal Condition at Marriage.**—(i) *General.* Particulars of age at marriage in age groups and previous conjugal condition of bridegrooms and brides in 1958 are given hereunder. There were 7,004 males under 21 years of age married during 1958, while the corresponding number of females was 27,340. At the other extreme there were 974 bridegrooms and 452 brides in the age group 65 years and over.

**AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES:
AUSTRALIA, 1958.**

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20 ..	3,356	1	..	3,357	18,546	3	5	18,554
20-24 ..	31,566	6	50	31,622	33,563	78	262	33,903
25-29 ..	19,274	64	435	19,773	8,093	211	912	9,216
30-34 ..	7,387	143	965	8,495	2,922	288	1,138	4,348
35-39 ..	2,625	183	858	3,666	1,308	376	1,009	2,693
40-44 ..	1,131	267	737	2,135	585	418	678	1,681
45-49 ..	633	340	535	1,508	420	469	474	1,363
50-54 ..	309	412	351	1,072	218	358	227	803
55-59 ..	178	393	219	790	143	305	89	537
60-64 ..	111	402	96	609	87	304	60	451
65 and over ..	87	824	63	974	71	356	25	452
Total ..	66,657	3,035	4,309	74,001	65,956	3,166	4,879	74,001

(ii) *Proportional Distribution.* In the following table the proportional distribution of bridegrooms and brides according to previous conjugal condition is shown in five-year periods from 1931–35 to 1951–55 and for each of the years 1955 to 1958:—

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: PROPORTIONAL DISTRIBUTION, AUSTRALIA.

(Per Cent.)

Period.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
1931–35 ..	92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00
1936–40 ..	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941–45 ..	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946–50 ..	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1951–55 ..	88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00
1955 ..	89.24	4.46	6.30	100.00	88.28	4.72	7.00	100.00
1956 ..	89.59	4.33	6.08	100.00	88.45	4.68	6.87	100.00
1957 ..	89.92	4.27	5.81	100.00	88.84	4.56	6.60	100.00
1958 ..	90.08	4.10	5.82	100.00	89.13	4.28	6.59	100.00

(iii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1958 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1958.

Age of Bridegroom (Years).	Total Bridegrooms.	Age of Bride (Years).							
		Under 15.	15–19.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.
Under 20 ..	3,357	13	2,776	540	22	6	..	..	..
20–24 ..	31,622	12	11,755	18,300	1,373	147	28	5	2
25–29 ..	19,773	3	3,253	11,347	3,967	918	229	38	18
30–34 ..	8,495	..	605	2,971	2,564	1,547	572	173	63
35–39 ..	3,666	..	107	559	850	919	774	291	166
40–44 ..	2,135	1	18	119	299	482	517	406	293
45–49 ..	1,508	..	7	48	101	220	306	349	477
50–54 ..	1,072	..	3	11	24	71	154	230	579
55–59 ..	790	..	1	8	13	21	71	119	557
60–64 ..	609	..	..	..	1	14	33	39	522
65 and over ..	974	..	..	..	2	3	9	31	929
Total Brides	74,001	29	18,525	33,903	9,216	4,348	2,693	1,681	3,606

(iv) *Average Ages of Bridegrooms and Brides.* The average age at marriage of brides and bridegrooms has steadily declined during recent years. The average ages, in years, of brides for each of the five years to 1958 were:—1954, 25.59; 1955, 25.42; 1956, 25.34; 1957, 25.18; and 1958, 25.00. The average ages, in years, of bridegrooms were 28.82 in 1954, 28.68 in 1955, 28.66 in 1956, 28.54 in 1957, and 28.36 in 1958. The difference in the average age at marriage as between brides and bridegrooms is generally just over three years, the difference in 1958 being 3.36 years.

6. **Previous Conjugal Condition.**—The following table shows the relative conjugal condition of bridegrooms and brides in 1958.

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1958.

Conjugal Condition of Bridegrooms.	Total. Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	66,657	62,547	1,254	2,856
Widowers	3,035	1,113	1,337	585
Divorced	4,309	2,296	575	1,438
Total Brides	74,001	65,956	3,166	4,879

7. **Birthplaces of Persons Marrying.**—A table showing the relative birthplaces of bridegrooms and brides married in each year will be found in the annual bulletin, *Demography*.

8. **Occupation of Bridegrooms.**—The distribution of the 74,001 bridegrooms for 1958 amongst classes of occupations was as follows:—craftsmen, 20,011; commercial and clerical, 13,219; operatives, 11,698; rural, fishing and hunting, 7,759; labourers, 8,103; professional and semi-professional, 4,263; domestic and protective service, 4,094; administrative, 2,884; not gainfully occupied and not stated, 1,970.

9. **Celebration of Marriages.**—In all the States, marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars—but most of the marriages are celebrated by ministers of religion. The registered ministers in 1958 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been combined under the heading "Other Christian". The figures for 1958 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION, 1958.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Proportion of Total.
Church of England ..	8,980	4,788	2,781	1,332	1,481	929	24	109	20,424	27.60
Roman Catholic ..	7,595	5,588	2,735	1,281	1,260	521	76	87	19,143	25.87
Methodist ..	2,683	2,522	1,633	1,485	623	366	7	16	9,335	12.61
Presbyterian ..	3,014	3,346	1,784	299	330	124	21	31	8,949	12.09
Greek Orthodox ..	785	1,041	119	348	71	7	6	..	2,377	3.21
Baptist ..	415	267	166	156	71	55	1	4	1,135	1.53
Lutheran ..	133	256	253	357	18	6	10	5	1,038	1.40
Congregational ..	275	257	96	224	101	38	..	..	991	1.34
Church of Christ ..	70	356	69	177	91	16	..	3	782	1.06
Salvation Army ..	122	100	112	49	35	23	8	..	449	0.61
Seventh-Day Adventist ..	75	40	38	13	26	5	..	..	197	0.27
Unitarian ..	..	27	..	3	..	..	..	..	30	0.04
Other Christian ..	150	134	143	41	128	24	27	..	647	0.88
Hebrew ..	118	151	7	2	14	..	..	..	292	0.39
Other Non-Christian ..	..	..	..	1	..	..	..	..	1	..
Total ..	24,415	18,873	9,936	5,768	4,249	2,114	180	255	65,790	88.90
Civil Officers ..	4,139	1,776	319	737	789	361	21	69	8,211	11.10
Grand Total	28,554	20,649	10,255	6,505	5,038	2,475	201	324	74,001	100.00

PROPORTION OF TOTAL.
(Per cent.)

Denominational ..	85.50	91.40	96.89	88.67	84.34	85.42	89.55	78.70	88.90
Civil ..	14.50	8.60	3.11	11.33	15.66	14.58	10.45	21.30	11.10

§ 3. Divorce.

The number of dissolutions of marriage, nullities of marriage and judicial separations in 1958 was 6,983. Further information may be found in Chapter XVI.—Public Justice, and detailed tables relating to divorce statistics for 1958 and summary tables for earlier years in *Demography*, Bulletin No. 76.

§ 4. Fertility and Reproduction.

NOTE.—See NOTE at the beginning of this chapter.

1. **Introduction.**—Of the two elements of increase in the population, namely, natural increase and net migration, the former has been by far the more important over the past few decades. The level of natural increase depends on the excess of births over deaths and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

2. **Number of Live Births and Confinements.**—(i) *Year 1958.* There are various methods of measuring the fertility of the population by relating the number of births to the number in the population. In each the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1958 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS, 1958.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aus- tralia.
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LIVE BIRTHS.

Single births..	78,246	59,731	33,130	19,555	16,338	8,370	685	1,243	217,298
Twins ..	1,764	1,512	727	480	390	198	12	29	5,112
Triplets ..	35	26	15	12	3	..	..	3	94
Males ..	40,809	31,517	17,443	10,181	8,532	4,449	347	679	113,957
Females ..	39,236	29,752	16,429	9,866	8,199	4,119	350	596	108,547
Total ..	80,045	61,269	33,872	20,047	16,731	8,568	697	1,275	222,504

STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE.

Twins ..	42	6	15	4	16	2	..	1	86
Triplets ..	1	1	..	..	..	..	..	..	2

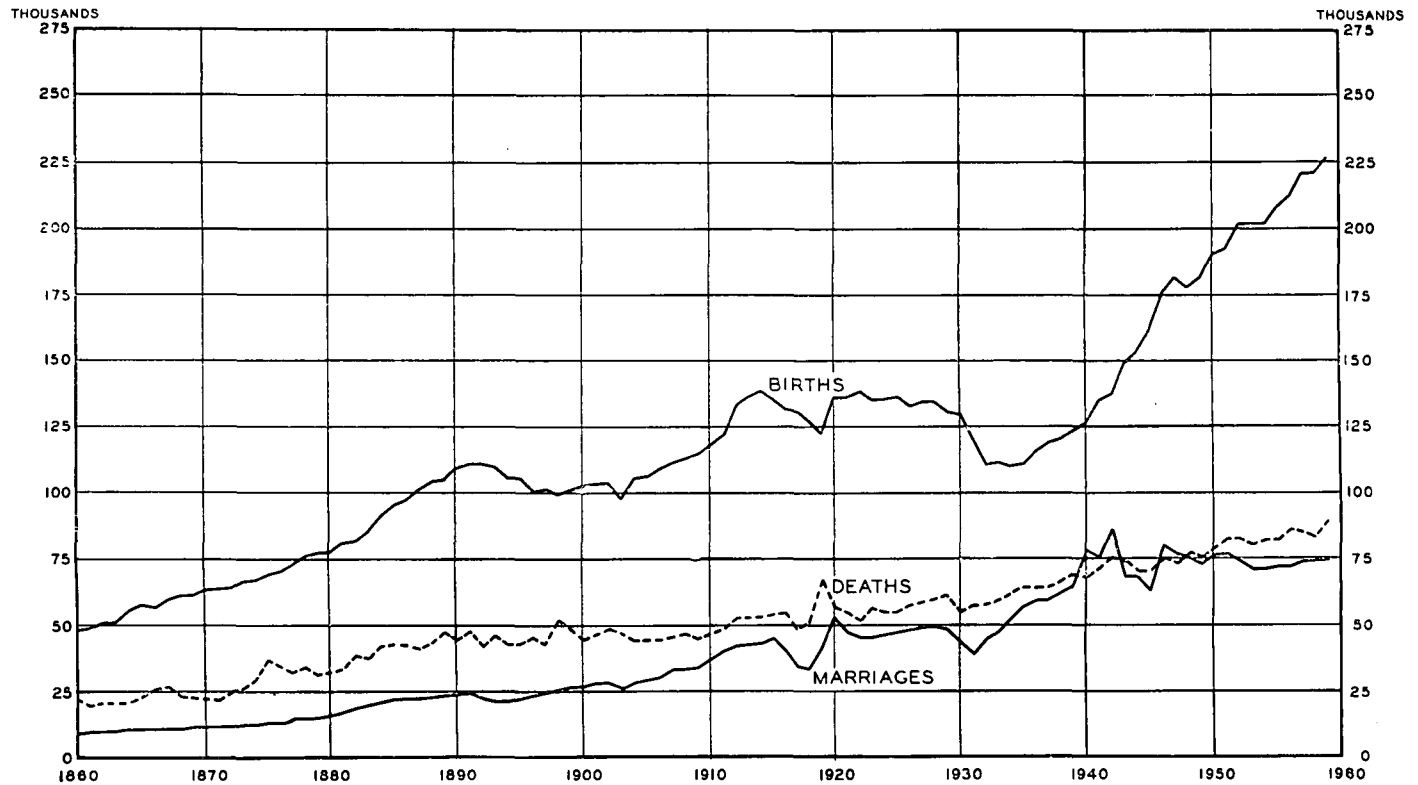
CONFINEMENTS RESULTING IN ABOVE BIRTHS.

Nuptial ..	75,370	58,309	31,532	19,072	15,695	8,099	593	1,238	209,908
Ex-nuptial ..	3,791	2,190	1,974	729	847	371	98	21	10,021
Total ..	79,161	60,499	33,506	19,801	16,542	8,470	691	1,259	219,929

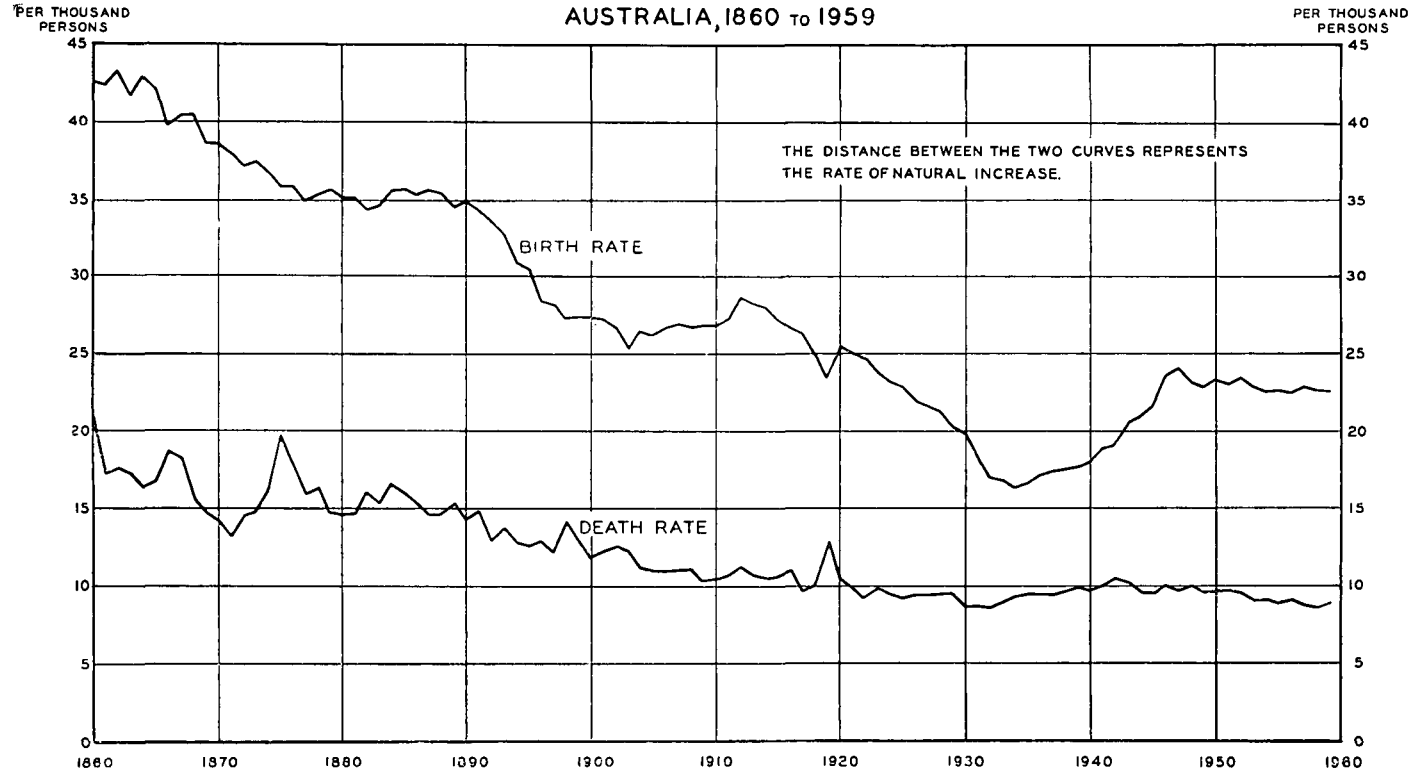
NOTE.—Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy is live-born the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para. 13, p. 344.

(ii) *Live Births, Years 1931 to 1959.* The average annual number of live births in each State and Territory for each five-year period from 1931 to 1955 and the total number of live births for each year from 1955 to 1959 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in *Official Year Book* No. 39, page 583.

BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1860 to 1959

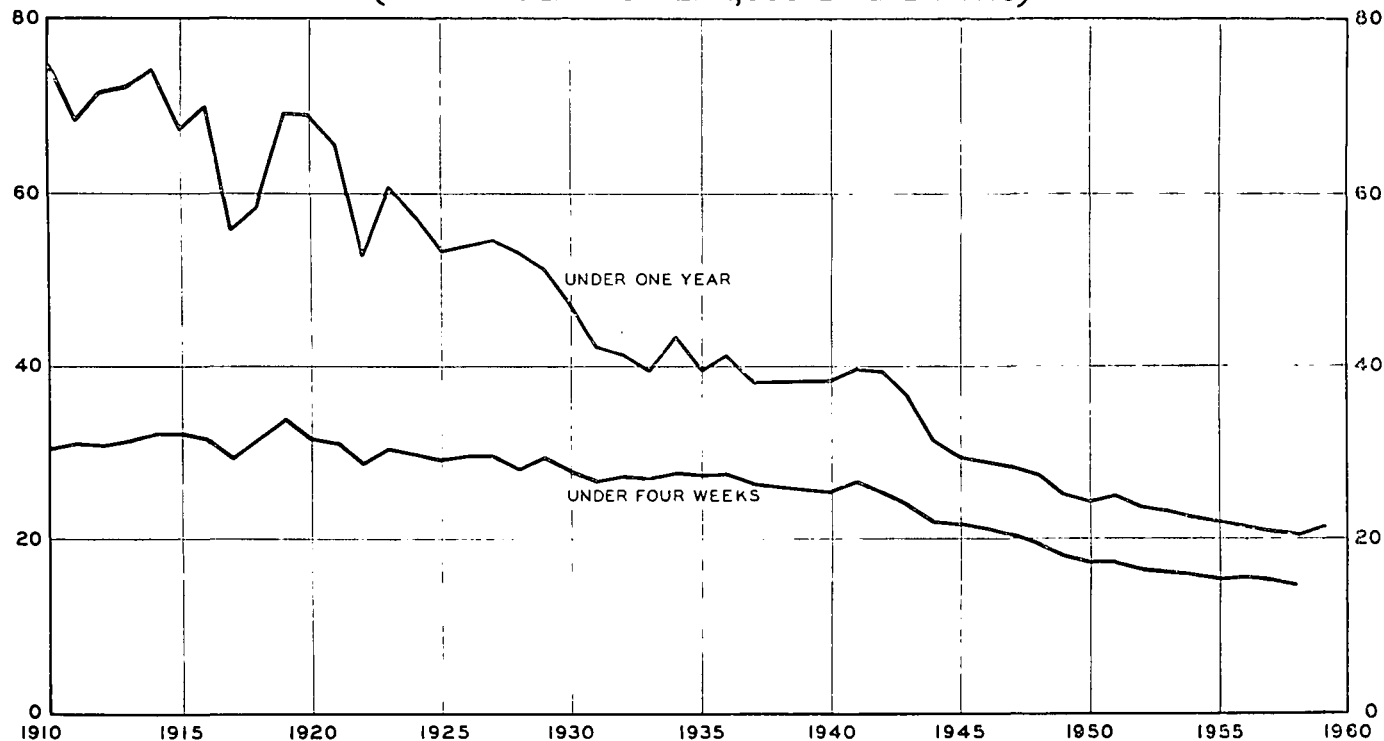


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE



INFANT MORTALITY RATES: AUSTRALIA, 1910 TO 1959

(INFANT DEATHS PER 1,000 LIVE BIRTHS)



LIVE BIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1931-35 ..	44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302
1936-40 ..	47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972
1941-45 ..	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946-50 ..	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55 ..	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
ANNUAL TOTALS.									
1955 ..	74,407	56,336	32,352	18,494	16,623	8,089	515	861	207,677
1956 ..	75,714	58,393	32,409	18,964	16,916	8,104	556	1,077	212,133
1957 ..	79,456	60,464	33,763	19,536	16,924	8,435	646	1,134	220,358
1958 ..	80,045	61,269	33,872	20,047	16,731	8,568	697	1,275	222,504
1959 ..	80,866	62,245	35,599	20,372	17,111	8,625	796	1,362	226,976

A graph showing the number of births in each year from 1860 to 1959 will be found on page 335.

3. *Crude Birth Rates.*—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 340-3.

Crude birth rates for each five-year period from 1931 to 1955 and for each year from 1955 to 1959 for each State and Territory are set out below:—

CRUDE BIRTH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931-35 ..	17.28	15.60	18.48	14.89	18.36	19.95	15.99	15.77	16.94
1936-40 ..	17.51	16.20	19.48	15.82	19.16	20.58	19.96	18.68	17.52
1941-45 ..	19.79	19.27	22.28	20.43	21.72	22.23	11.40	26.82	20.28
1946-50 ..	22.60	22.51	24.69	24.41	25.24	26.71	23.77	37.92	23.39
1951-55 ..	21.78	22.41	24.13	23.25	25.35	25.57	29.64	32.30	22.85
ANNUAL RATES.									
1955 ..	21.31	22.30	24.16	22.55	25.23	25.59	30.22	32.56	22.57
1956 ..	21.29	22.42	23.72	22.35	24.98	25.15	31.07	31.04	22.50
1957 ..	21.93	22.61	24.25	22.35	24.47	25.55	34.49	30.13	22.86
1958 ..	21.67	22.36	23.95	22.35	23.71	25.37	36.25	31.01	22.59
1959 ..	21.51	22.13	24.77	22.12	23.80	25.05	38.87	29.22	22.56

(a) Number of births per 1,000 of mean population. (b) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951-55, 32.22; 1955, 26.30; 1956, 30.47; 1957, 29.84.

NOTE.—The birth rates in the table above are based on live births registered in the respective States and Territories. Prior to 1939, a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border. With improved hospital facilities in the Territory, the position was reversed until late in 1952, when maternity accommodation was provided at the Queanbeyan District Hospital. The following rates, based on births in respect of which the mother's usual residence was the Australian Capital Territory, are a truer measure of birth rates in the Australian Capital Territory.

Average Annual Rates.				Annual Rates.			
1931-1935 ..	..	..	19.53	1955 ..	..	..	(a)26.53
1936-1940 ..	..	..	19.29	1956 ..	..	..	(a)30.64
1941-1945 ..	..	..	23.06	1957 ..	..	..	(a)29.58
1946-1950 ..	..	..	27.13	1958 ..	..	..	31.04
1951-1955 ..	..	..	(a)28.39	1959 ..	..	..	29.52

(a) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951-55, 28.32; 1955, 26.27; 1956, 30.07; 1957, 29.29.

The variations similarly caused in the birth rates for the States and the Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are shown by the following corrected rates for 1959:—New South Wales, 21.52; Victoria, 22.10; Queensland, 24.78; South Australia, 22.10; Western Australia, 23.83; Tasmania, 25.12; and Northern Territory, 38.53.

A graph showing the birth rate for each year from 1860 to 1959 will be found on page 336.

In the earlier years of the present century the crude birth rate fluctuated somewhat, but from 1912, when 28.60 was recorded, there was an almost continuous decline to the very low figure of 16.39 in 1934. The decline in the depression years was occasioned to some extent by the postponement of marriages. With subsequent improvement in economic conditions the rate rose, and in 1940 it increased quite appreciably, owing to a continued improvement in the economic welfare of the community and the war-time boom in marriages. The improvement in the birth rate has been substantially maintained since the end of the war despite some falling off in marriage rates. The post-war peak of 24.07 was recorded in 1947.

4. **Crude Birth Rates, Various Countries.**—The following table gives crude birth rates for Australia in comparison with rates for various other countries:—

CRUDE BIRTH RATES(a): VARIOUS COUNTRIES.

Country.	1921- 25.	1926- 30.	1931- 35.	1958.	Country.	1921- 25.	1926- 30.	1931- 35.	1958.
Canada ..	27.4	24.1	21.4	27.7	Finland ..	24.7	22.5	19.5	18.5
Union of South Africa(b)	27.1	25.9	24.1	25.7	France ..	19.3	18.2	16.5	18.1
New Zealand(c)	22.2	19.7	17.0	25.2	Norway ..	22.2	18.0	15.2	18.1
United States of America	22.5	19.7	16.9	24.3	Japan ..	34.6	33.5	31.6	18.0
Yugoslavia	35.0	34.2	31.8	23.8	Italy ..	29.8	26.8	23.8	17.9
Australia(e)	23.9	21.0	16.9	22.6	Switzerland	19.5	17.6	16.4	17.6
Spain ..	29.8	28.5	27.1	21.9	Belgium ..	20.4	18.6	16.8	17.0
Netherlands	25.7	23.2	21.2	21.1	Austria ..	22.2	17.6	14.4	16.9
Ireland, Republic of	20.3	20.1	19.4	20.9	United Kingdom	20.4	17.2	15.5	16.8
					Denmark ..	22.3	19.4	17.7	16.5
					Sweden ..	19.1	15.9	14.1	14.2

(a) Number of births per 1,000 of mean or mid-year population. (b) While population only.
(c) Excludes Maoris. (d) 1933-35. (e) Excludes full-blood aborigines.

5. **Fertility Rates.**—The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical.

In order to compare fertilities, births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880-82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be 15-44 years inclusive, but births to mothers who were stated to be under 15 or over 44 years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA.

Period.	Average Annual Rates.			Index Nos. (Base: 1880-82 = 100).		
	Crude Birth Rate.(a)	Fertility Rates.		Crude Birth Rate.(a)	Fertility Rates.	
		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.
1880-82.. ..	35.3	170	321	100	100	100
1890-92.. ..	34.5	159	332	98	94	103
1900-02.. ..	27.2	117	235	77	69	73
1910-12.. ..	27.2	117	236	77	69	74
1920-22.. ..	25.0	107	197	71	63	61
1932-34.. ..	16.7	71	131	47	42	41
1946-48.. ..	23.6	104	160	67	61	50
1953-55.. ..	22.7	109	149	64	64	46

(a) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent. over the period 1932-34 to 1946-48 the crude birth rate rose by 41 per cent. due principally to the greatly increased number of marriages during that period.

6. Age-specific Fertility Rates for Females.—So long as customary ages at marriage do not change drastically, the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific fertility rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Age-specific fertility rates are more commonly expressed in age groups than in single ages. In the following table, such rates, calculated in terms of female births for the purpose of obtaining the gross and net reproduction rates described in para. 7, are shown in five-year age groups for Australia for the period 1921 to 1958.

AGE-SPECIFIC FERTILITY RATES(a): AUSTRALIA.

Age Group (Years).	1921.	1926.	1931.	1936.	1941.	1946.	1951.	1956.	1957.	1958.
15-19	12.83	14.02	13.08	12.18	11.90	12.63	18.59	20.84	21.26	21.81
20-24	65.45	60.23	53.08	50.33	59.42	73.52	85.84	101.46	104.24	105.43
25-29	82.24	76.82	62.47	62.02	70.78	89.51	90.24	98.11	102.53	103.28
30-34	68.50	61.90	51.25	46.33	49.72	65.03	59.16	59.65	62.35	61.32
35-39	49.48	43.55	33.23	28.89	28.69	37.43	32.29	31.32	31.61	31.65
40-44	21.66	17.63	13.61	10.19	9.52	11.87	9.97	9.48	9.73	9.19
45-49	2.10	1.90	1.45	1.11	0.80	1.03	0.80	0.76	0.64	0.73

(a) Number of female births per 1,000 women in each age group.

The table shows that in recent years the most fertile age group has been 20-24 years, whereas previously fertility had been highest for the 25-29 age group. The decline in fertility between 1921 and 1936 was general but was more pronounced in the higher age groups. During the period 1936 to 1958 a rise in fertility occurred in all age-groups below 40. The most noticeable increase has been in the 20-24 age group, in which, as mentioned, fertility is now highest, as the result of a marked trend towards earlier marriage.

7. Gross and Net Reproduction Rates for Females.—A single measure of reproduction known as the gross reproduction rate is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on the average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an

imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility in paragraph 9, page 343.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA.

Year.	Gross Reproduction Rate.	Net Reproduction Rate.	Year.	Gross Reproduction Rate.	Net Reproduction Rate.
1881(a)	2.65	(b) 1.88	1947	1.493	(g) 1.416
1891(a)	2.30	(b) 1.73	1953	1.556	(g) 1.477
1901(a)	1.74	(c) 1.39	1954	1.558	(h) 1.497
1911	1.705	(d) 1.421	1955	1.594	(h) 1.532
1921	1.511	(e) 1.313	1956	1.608	(h) 1.546
1931	1.141	(f) 1.039	1957	1.662	(h) 1.598
1941	1.154	(f) 1.053	1958	1.667	(h) 1.603

(a) Approximate only. (b) 1881-1890 mortality experience used. (c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experience used. (f) 1932-1934 mortality experience used. (g) 1946-1948 mortality experience used. (h) 1953-1955 mortality experience used.

NOTE.—It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking account of previous fertility and marriage experiences. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

Since 1881, there has been a substantial downward trend in both rates, but the gross rate has fallen considerably more than the net, showing that the decline in fertility has been offset to some extent by a decline in mortality. The net reproduction rate was below unity over the period 1932 to 1939. If such low levels were to be experienced indefinitely, ultimate population decline would be certain. The progressive rise in both gross and net reproduction rates from 1939 to 1947 was due largely to higher marriage rates during the war and early post-war years than had been experienced in the immediate pre-war years. Owing to various influences, the number of marriages in each year since 1950 has remained at a relatively high level and the net reproduction rates have been rising slowly. The fertility of marriages is shown in paragraph 9 below.

8. Gross and Net Reproduction Rates, Various Countries.—In the following table, a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1955 to 1958. These represent the latest available international comparison.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Canada	1957	1.91	(a)	Norway	1956	1.37	1.32
New Zealand(b) ..	1957	1.89	1.82	Scotland	1957	1.33	1.27
United States of America(c) ..	1956	1.72	1.66	France	1956	1.30	1.24
Australia(d) ..	1958	1.67	1.60	Denmark	1956	1.26	1.14
Ireland, Republic of	1955	1.59	1.45	Switzerland ..	1957	1.24	1.18
Netherlands ..	1957	1.48	1.42	Belgium	1957	1.19	1.08
Portugal	1957	1.40	1.20	England and Wales	1956	1.15	1.11
Finland	1957	1.38	1.30	Sweden	1956	1.10	1.06

(a) Not available, full-blood aboriginals.

(b) Excludes Maoris.

(c) White population only.

(d) Excludes

In comparing the reproduction rates of the countries shown above, allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

9. **Fertility of Marriages.**—Estimates of the fertility of marriages which were published in issues of the Official Year Book prior to No. 36 were calculated by relating the births of one five-year period to the marriages in the preceding five years (*see* Official Year Book No. 35, p. 329). Since the publication of that issue, an improved method has been formulated for measuring current marriage fertility by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES: AUSTRALIA.

Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
1944..	2.28	1949..	2.45	1954..	2.66
1945..	2.36	1950..	2.56	1955..	2.71
1946..	2.55	1951..	2.55	1956..	2.76
1947..	2.55	1952..	2.63	1957..	2.87
1948..	2.44	1953..	2.66	1958..	2.88.

NOTE.—See NOTE to table on page 342.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. There was an almost continuous decline for a number of years to 1942, but a pronounced increase has since occurred. In comparing this index with the net reproduction rate, it is evident that the rise in the latter since 1935 has been caused mainly by a rise of the proportions of women married in the fertile age groups. Only since 1944 has there been an increase in the fertility of marriages compared with pre-war levels.

The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and are consequently not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.

10. **Masculinity of Live Births.**—The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States), considerable variation is shown. The averages for the ten years 1941–50 were as follows:—New South Wales, 105.49; Victoria, 105.47; Queensland, 105.49; South Australia, 105.78; Western Australia, 104.27; Tasmania 104.45; Northern Territory, 100.20; Australian Capital Territory, 104.91; Australia, 105.38. The following table shows the figures for Australia for each ten-year period from 1901 to 1950 and for each of the years 1956 to 1959:—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA.

Particulars.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.	1956.	1957.	1958.	1959.
Total Births	105.22	105.27	105.55	105.12	105.38	106.87	105.71	104.98	104.97
Ex-nuptial Births	104.08	105.25	105.16	105.36	105.34	107.16	102.86	104.83	103.72

(a) Number of males born for every 100 female births.

11. **Ex-nuptial Live Births.**—(i) *General.* The highest proportion of ex-nuptial births in any one year since 1901 was recorded in 1905, when there were 6,545 ex-nuptial births, representing 6.24 per cent. of total births. Since then, the proportion has declined. The largest number of ex-nuptial births was recorded in 1959, when 10,687 were registered, but this number represented only 4.71 per cent. of total births. The lowest proportion was 3.78 per cent. in 1940.

The variations in the proportions of ex-nuptial births as between the individual States and Territories for 1958 are shown below.

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1958.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number ..	3,832	2,219	1,993	738	854	375	99	21	10,131
Proportion of Total Births %	4.79	3.62	5.88	3.68	5.10	4.38	14.20	1.65	4.55

The number and proportion of ex-nuptial births at intervals from 1901 to 1958 are as follows:—

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, AUSTRALIA.

Particulars.	Annual Average.					1955.	1956.	1957.	1958.
	1901-10.	1911-20.	1921-30.	1931-40.	1941-50.				
Number ..	6,498	6,836	6,238	5,133	6,780	8,537	8,970	9,362	10,131
Proportion of Total Births .. %	6.05	5.22	4.66	4.40	4.13	4.11	4.23	4.25	4.55

It is possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality.

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows:—1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; 1920-22, 10.50; 1932-34, 6.91; 1946-48, 11.45; and 1953-55, 14.45. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.

(iii) *Comparison of Rates.* The following table, showing the relative proportions of ex-nuptial and nuptial births to the total population, discloses a much greater proportional movement in the ex-nuptial birth rate than in the nuptial rate:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(a): AUSTRALIA

Birth Rate.	Annual Average.					1955.	1956.	1957.	1958.
	1901-10.	1911-20.	1921-30.	1931-40.	1941-50.				
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.90	0.93	0.95	0.97	1.03
Nuptial ..	24.91	25.18	21.40	16.47	20.99	21.64	21.55	21.89	21.56
Total ..	26.51	26.57	22.44	17.23	21.89	22.57	22.50	22.86	22.59

(a) Number of births per 1,000 of mean population.

12. *Legitimations.*—Acts have been passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1958, the number of children legitimized in Australia was 939.

13. *Multiple Births.*—Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

During 1958, multiple births recorded on the above basis comprised 2,599 cases of twins and 32 cases of triplets, the resultant numbers of live-born and still-born children being respectively 5,112 and 86 for twins, 94 and 2 for triplets. This represents an average of 11.82 recorded cases of twins and 0.14 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 85 mothers and mothers of triplets 1 in every 6,873. Total cases of multiple births represented 11.96 per 1,000 confinements or 1 in every 84 mothers.

The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

14. *Ages of Parents.*—The relative ages of the parents of children whose births were registered in 1958 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 76. In the following table, the relative ages of parents are shown in five year groups.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1958.

Age of Father (Years) and Type of Birth.	Total.	Age of Mother (Years).								
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 20	1,696	8	1,394	284	8	2	..	..	..
20-24	31,714	1	7,793	21,367	2,379	154	19	1	..	
25-29	66,574	..	2,539	30,319	29,469	3,858	354	33	2	
30-34	56,570	..	484	8,018	25,195	19,939	2,746	185	3	
35-39	31,452	..	96	1,437	6,356	13,578	9,164	807	14	
40-44	14,136	..	22	315	1,372	3,981	6,021	2,364	61	
45-49	5,538	..	9	96	401	1,095	2,140	1,610	187	
50-54	1,683	..	6	31	108	295	591	539	113	
55-59	401	..	..	9	28	70	147	125	22
60-64	90	..	2	1	6	18	26	32	5	
65 and over	54	..	..	3	4	11	14	17	5
Mothers of Nuptial Children	{ Single ..	207,390	9	12,258	61,358	64,542	42,317	20,848	5,649	409
	{ Twins ..	2,486	..	87	512	776	677	367	64	3
	{ Triplets ..	32	..	10	8	7	7
	{ Total ..	209,908	9	12,345	61,880	65,326	43,001	21,222	5,713	412
Mothers of Ex-nuptial Children	{ Single ..	(a)9,908	42	2,387	2,852	1,994	1,451	884	271	19
	{ Twins ..	113	..	16	26	26	26	17	2	..
	{ Total ..	a 10,021	42	2,403	2,878	2,020	1,477	901	273	19
Total Mothers	{ Single ..	a 217,298	51	14,645	64,210	66,536	43,768	21,732	5,920	428
	{ Twins ..	2,599	..	103	538	802	703	384	66	3
	{ Triplets ..	32	10	8	7
	{ Total ..	a 219,929	51	14,748	64,758	67,346	44,478	22,123	5,986	431

(a) Includes eight mothers whose ages were not stated.

15. *Birthplaces of Parents.*—A table showing birthplaces of parents of children whose births were registered during 1958 appears in *Demography*, Bulletin No. 76.

16. *Occupation of Fathers.*—A table showing occupations of the fathers of nuptial children whose births were registered in 1958 appears in *Demography*, Bulletin No. 76.

17. *Age, Duration of Marriage and Issue of Mothers.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1958 was 209,908, comprising 207,390 single births, 2,486 cases of twins and 32 cases of triplets. The tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that in 1958 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1958 was 2.56, compared with 2.54 in 1957, 2.52 in 1956, 2.50 in 1955, and 2.48 in 1954.

NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1958.

Duration of Marriage.	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage.	Total Married Mothers.	Total Issue.	Average Issue.
Under 1 year	27,346	27,885	1.02	15 years ..	2,588	12,638	4.88
1 year ..	24,071	30,353	1.26	16 " ..	2,303	11,840	5.14
2 years ..	23,688	41,167	1.74	17 " ..	1,683	9,111	5.41
3 " ..	21,146	43,830	2.07	18 " ..	1,241	7,188	5.79
4 " ..	18,112	43,371	2.39	19 " ..	829	4,933	5.95
5 " ..	15,948	42,838	2.69	20 " ..	662	4,239	6.40
6 " ..	13,937	40,958	2.94	21 " ..	437	3,004	6.87
7 " ..	12,141	38,932	3.21	22 " ..	299	2,148	7.18
8 " ..	10,166	34,951	3.44	23 " ..	187	1,349	7.21
9 " ..	8,448	30,906	3.66	24 " ..	124	905	7.30
10 " ..	7,349	28,498	3.88	25 years and over ..	154	1,289	8.37
11 " ..	6,253	25,828	4.13				
12 " ..	4,611	20,069	4.35				
13 " ..	3,437	15,373	4.47				
14 " ..	2,748	13,080	4.76	Total ..	209,908	536,683	2.56

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother from year to year, but for mothers in the higher age groups the number of issue has fallen, until recently, in comparison with past years. In 1958, average issue was greater in all age groups under 40 years than in the decade 1941–50. The average issue of mothers of all ages recorded for 1958 (namely, 2.56) is 21.2 per cent. below the average of 3.25 for the years 1911–20.

AGE AND AVERAGE ISSUE OF MOTHERS: AUSTRALIA.

Period.	Age of Mother (Years).							All Ages.
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	
1911–20 ..	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921–30 ..	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931–40 ..	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941–50 ..	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1958 ..	1.24	1.74	2.50	3.20	3.94	4.67	5.26	2.56

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers by age and previous issue is given for 1958 in the following table:—

NUPTIAL CONFINEMENTS: AGE OF MOTHER AND PREVIOUS ISSUE, AUSTRALIA, 1958.

Previous Issue.	Age of Mother (Years).							Total Married Mothers.
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	
0 ..	9,773	30,796	15,765	6,157	2,356	550	34	65,431
1 ..	2,292	20,391	21,236	9,825	3,242	669	44	57,699
2 ..	264	7,809	15,957	11,407	4,576	885	43	40,941
3 ..	25	2,199	7,675	7,919	4,173	961	77	23,029
4 ..	..	555	3,004	4,055	2,786	865	46	11,311
5 ..	..	109	1,130	1,939	1,672	603	53	5,506
6 ..	..	19	381	886	1,051	418	35	2,790
7 ..	..	2	130	445	609	257	17	1,460
8 ..	..	..	38	226	319	198	19	800
9 ..	..	..	9	87	204	112	18	430
10 and over ..	..	..	1	55	234	195	26	511
Total Married Mothers ..	12,354	61,880	65,326	43,001	21,222	5,713	412	209,908

Of the 32 cases of nuptial triplets registered during 1958, 7 mothers had no previous issue, 11 had one, 5 had two, 4 had three, 1 had four, 3 had five and 1 had six.

18. **Nuptial First Births.**—(i) *Duration of Marriage.* The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA.

Duration of Marriage.	Annual Average.				1956.	1957.	1958.
	1911-20.	1921-30.	1931-40.	1941-50.			

NUMBER OF NUPTIAL FIRST BIRTHS.

Under 8 months	..	..	9,312	10,351	10,677	8,822	11,890	12,554	12,825
8 months	..	..	1,562	1,530	1,417	2,104	2,159	2,190	2,191
9 "	..	..	3,517	3,253	2,668	4,298	4,682	4,726	4,756
10 "	..	..	2,877	2,907	2,202	3,447	3,911	4,010	4,055
11 "	..	..	2,018	2,152	1,836	2,896	3,199	3,228	3,308
Total under 1 year	..	..	19,286	20,193	18,800	21,567	25,841	26,708	27,135
1 year and under 2 years	..	..	8,563	10,133	10,595	17,762	17,820	18,697	18,205
2 years "	..	3 "	2,626	3,369	4,319	8,028	7,630	7,844	7,920
3 "	..	4 "	1,230	1,743	2,214	4,361	4,209	4,382	4,354
4 "	..	5 "	700	941	1,205	2,569	2,729	2,624	2,516
5 "	..	10 "	980	1,446	1,766	3,936	4,561	4,615	4,423
10 "	..	15 "	168	240	289	501	711	745	705
15 years and over	..	..	42	55	55	94	145	177	173
Total	..	..	33,595	38,120	39,243	58,818	63,646	65,792	65,431

PROPORTION OF TOTAL NUPTIAL FIRST BIRTHS.

(Per cent.)

[illegible]

In 1958, the masculinity of nuptial first births was 105.76 and of total births 104.98.

(ii) *Age of Mother and Duration of Marriage.* A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table:—

NUPTIAL FIRST BIRTHS: AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA, 1958.

Duration of Marriage.	Age of Mother (Years).							Total.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 8 months ..	5,917	5,134	1,107	415	200	49	3	12,825
8 months ..	417	1,218	376	125	45	10	..	2,191
9 " ..	640	2,772	915	287	123	17	2	4,756
10 " ..	526	2,400	765	256	93	13	2	4,055
11 " ..	404	1,984	619	214	72	14	1	3,308
Total under 1 year ..	7,904	13,508	3,782	1,297	533	103	8	27,135
1 year and under 2 years ..	1,648	10,590	3,987	1,365	504	109	2	18,205
2 years " 3 " ..	188	4,138	2,502	755	269	64	4	7,920
3 " " 4 " ..	25	1,724	1,851	505	192	53	4	4,354
4 " " 5 " ..	5	562	1,394	395	132	27	1	2,516
5 " " 10 " ..	3	270	2,183	1,451	400	108	8	4,423
10 " " 15 " ..	..	4	65	370	226	38	2	705
15 years and over ..	..	..	1	19	100	48	5	173
Total ..	9,773	30,796	15,765	6,157	2,356	550	34	65,431

(iii) *Nuptial First Births and Subsequent Births.* The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS: AUSTRALIA.

Period.	Nuptial Confinements.			Proportion of First to Total Nuptial Confinements. (Per Cent.)
	First Births.	Other Births.	Total.	

ANNUAL AVERAGES.

1911-20 ..	33,595	88,997	122,592	27.40
1921-30 ..	38,120	88,086	126,206	30.20
1931-40 ..	39,243	71,136	110,379	35.55
1941-50 ..	58,818	96,994	155,812	37.75

ANNUAL TOTALS.

1954 ..	62,029	129,989	192,018	32.30
1955 ..	62,238	134,679	196,917	31.61
1956 ..	63,646	137,217	200,863	31.69
1957 ..	65,792	142,847	208,639	31.53
1958 ..	65,431	144,477	209,908	31.17

19. *Stillbirths.*—The registration of stillbirths has been compulsory in Western Australia since 14th January, 1908; in the Australian Capital Territory since 1st January, 1930; in New South Wales since 1st April, 1935; in South Australia since 1st May, 1937; in the Northern Territory since 1st July, 1949; in Victoria from 1st January, 1953; and in Queensland from 22nd March, 1959. In Tasmania, where registration is not compulsory some information is obtained by voluntary registration and notification of stillbirths for various purposes. Because registration is not compulsory in all States, detailed statistics of stillbirths for Australia as a whole have not been compiled.

The number of stillbirths in each State and Territory, as recorded since 1936 by the means outlined above, is shown in the following table:—

STILLBIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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ANNUAL AVERAGES.

1936-40 ..	1,409	854	(a)	(b) 274	234	144	(a)	5	(a)
1941-45 ..	1,478	966	(c) 657	324	248	143	(a)	9	de 3,825
1946-50 ..	1,405	949	626	368	274	161	(a)	12	(e) 3,795
1951-55 ..	1,239	849	581	290	271	139	8	15	3,392

ANNUAL TOTALS.

1954 ..	1,207	794	554	254	270	124	8	19	3,230
1955 ..	1,243	788	521	271	239	109	7	13	3,191
1956 ..	1,273	819	556	274	226	122	4	28	3,302
1957 ..	1,282	870	584	297	273	104	4	9	3,423
1958 ..	1,208	826	548	240	225	105	5	13	3,170

(a) Not available. (b) Three years 1938-40. (c) Four years 1942-45. (d) Excludes Queensland for 1941. (e) Excludes the Northern Territory.

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows:—

PROPORTION OF STILLBIRTHS.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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AVERAGE ANNUAL RATES.

1936-40 ..	28.71	27.43	(b)	c27.49	25.70	28.75	(b)	22.18	(b)
1941-45 ..	25.46	24.79	d26.76	25.17	23.29	25.68	(b)	22.87	ef25.25
1946-50 ..	19.99	19.64	21.87	22.12	20.46	22.26	(b)	16.35	f20.46
1951-55 ..	16.52	15.55	18.41	15.80	16.97	17.54	17.20	15.58	16.56

ANNUAL RATES.

1954 ..	16.24	14.32	17.46	13.74	16.67	15.71	15.36	21.69	15.72
1955 ..	16.43	13.79	15.85	14.44	14.17	13.30	13.41	14.87	15.13
1956 ..	16.54	13.83	16.87	14.24	13.18	14.83	7.14	25.34	15.33
1957 ..	15.88	14.18	17.00	14.98	15.87	12.18	6.15	7.87	15.30
1958 ..	14.87	13.30	15.92	11.83	13.27	12.11	7.12	10.09	14.05

(a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available. (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes Queensland for 1941. (f) Excludes the Northern Territory.

§ 5. Mortality.

NOTE.—See NOTE at the beginning of this chapter. A detailed analysis for 1958 of causes of death and other characteristics such as issue will be found in *Demography*, Bulletin No. 76.

1. Number of Deaths.—(i) Year 1959. The following table shows the number of deaths, male and female, registered in each State and Territory during the year. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

DEATHS, 1959.

Sex.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	19,857	13,730	7,276	4,425	3,240	1,553	101	111	50,293
Females ..	15,392	11,348	5,073	3,518	2,257	1,227	23	81	38,919
Persons ..	35,249	25,078	12,349	7,943	5,497	2,780	124	192	89,212

(ii) *Years 1931 to 1959.* A summary of the number of deaths in each State and Territory from 1931 to 1959 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 597.

DEATHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1931-35 ..	22,591	17,680	8,147	5,063	3,876	2,194	67	35	59,653
1936-40(a) ..	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941-45(a) ..	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946-50(a) ..	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951-55 ..	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
ANNUAL TOTALS.									
1955 ..	32,553	22,527	11,307	7,536	5,379	2,489	119	126	82,036
1956 ..	34,064	23,886	12,186	7,593	5,572	2,513	107	167	86,088
1957 ..	33,317	24,131	11,679	7,576	5,297	2,670	115	168	84,953
1958 ..	32,350	23,625	11,455	7,743	5,554	2,708	106	182	83,723
1959 ..	35,249	25,078	12,349	7,943	5,497	2,780	124	192	89,212

(a) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September, 1939 to June, 1947.

A graph showing the number of deaths in each year from 1860 to 1959 will be found on page 335.

2. *Crude Death Rates.*—The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period. Crude death rates for each State and Territory from 1931 to 1959 are shown in the following table.

CRUDE DEATH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931-35 ..	8.68	9.72	8.62	8.72	8.83	9.63	13.46	3.81	9.00
1936-40(b) ..	9.43	10.36	9.08	9.33	9.22	9.91	11.69	4.54	9.63
1941-45(b) ..	9.73	10.63	9.24	10.26	9.86	10.21	6.43	4.98	9.96
1946-50(b) ..	9.70	10.37	9.13	9.76	9.23	9.30	6.27	5.31	9.74
1951-55 ..	9.49	9.55	8.71	9.25	8.49	8.47	6.92	(c)4.60	9.25
ANNUAL RATES.									
1955 ..	9.32	8.92	8.44	9.19	8.17	7.87	6.98	(c)3.89	8.91
1956 ..	9.58	9.17	8.92	8.95	8.23	7.80	5.98	(c)4.81	9.13
1957 ..	9.20	9.03	8.39	8.67	7.66	8.09	6.14	(c)4.46	8.81
1958 ..	8.76	8.62	8.10	8.63	7.87	8.02	5.51	4.43	8.50
1959—									
Males ..	11.05	9.70	9.90	9.49	8.80	8.67	8.88	4.49	9.89
Females ..	8.20	8.13	7.22	7.74	6.44	7.42	2.53	3.70	7.82
Persons ..	9.38	8.92	8.59	8.62	7.65	8.07	6.06	4.12	8.87

(a) Number of deaths per 1,000 of mean population. (b) Excludes deaths of defence personnel from September, 1939 to June, 1947. (c) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951-55, 4.58; 1955, 3.85; 1956, 4.72; 1957, 4.42.

A graph showing the crude death rate for each year from 1860 to 1959 will be found on page 336.

3. **Standardized Death Rates.**—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900.

(ii) *Death Rates in Age Groups.* An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 9, page 360.

(iii) *Comparison of Crude and Standardized Death Rates.* The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947 and 1954 is illustrated in the following statement of crude and "standardized" death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Crude Death Rate(a)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954	9.46	9.19	8.64	9.01	8.38	8.67	9.10
Standardized Death Rate(b)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947	7.44	7.31	7.47	6.77	7.28	7.21	7.34
1954	7.24	6.63	6.80	6.52	6.71	7.02	6.90

(a) Total deaths per 1,000 of mean population.
in para. 3 (i) above.

(b) See explanation of standardized death rates

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

4. **True Death Rates.**—The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in the standard population one person in 50 or 20 per thousand will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH RATES: AUSTRALIA.

Period.	Complete Expectation of Life at Birth (Years).		True Death Rate.	
	Males.	Females.	Males.(a)	Females.(b)
1881-1890	47.20	50.84	21.19	19.67
1891-1900	51.06	54.76	19.58	18.26
1901-1910	55.20	58.84	18.12	17.00
1920-1922	59.15	63.31	16.91	15.80
1932-1934	63.48	67.14	15.75	14.89
1946-1948	66.07	70.63	15.14	14.16
1953-1955	67.14	72.75	14.89	13.75

(a) Number of deaths per 1,000 males in life table or stationary population.

(b) Number of deaths per 1,000 females in life table or stationary population.

5. Crude Death Rates, Various Countries.—The following table gives crude death rates for Australia in comparison with rates for various other countries.

CRUDE DEATH RATES(a): VARIOUS COUNTRIES.

Country.	1921-25.	1926-30.	1931-35.	1958.	Country.	1921-25.	1926-30.	1931-35.	1958.
Netherlands ..	10.4	9.9	8.9	7.5	Yugoslavia ..	20.2	20.0	17.9	9.2
Japan ..	21.8	19.3	17.9	7.5	Italy ..	17.4	16.0	14.1	9.4
Canada ..	11.2	11.1	9.7	7.8	Switzerland ..	12.5	12.1	11.8	9.5
Australia(b) ..	9.5	9.3	9.0	8.5	United States of America ..	11.8	11.8	10.9	9.5
Union of South Africa(c) ..	9.7	9.7	9.8	8.6	Sweden ..	12.1	12.1	11.6	9.6
Spain ..	20.2	17.9	16.4	8.7	France ..	17.2	16.8	15.7	11.2
Finland ..	15.1	14.8	13.3	8.9	United Kingdom ..	12.4	12.3	12.2	11.7
New Zealand(d) ..	8.6	8.6	8.2	8.9	Ireland, Republic of ..	14.6	14.4	14.0	12.0
Norway ..	11.5	11.0	10.4	8.9	Belgium ..	13.4	13.7	12.9	12.1
Denmark ..	11.3	11.1	10.9	9.2	Austria ..	15.8	14.4	13.5	12.2

(a) Number of deaths per 1,000 of mean or mid-year population.

(b) Excludes full-blood aborigines.

(c) White population only.

(d) Excludes Maoris.

(e) 1933-35.

6. True Death Rates, Various Countries.—The following table gives true death rates for Australia in comparison with rates for various other countries:—

TRUE DEATH RATES: VARIOUS COUNTRIES.

Country.	Period.	True Death Rate.		Country.	Period.	True Death Rate.	
		Males. (a)	Females. (b)			Males. (a)	Females. (b)
Netherlands ..	1953-55	14.1	13.5	Canada ..	1950-52	15.1	14.1
Norway ..	1951-55	14.1	13.4	Switzerland ..	1948-53	15.1	14.1
Sweden ..	1951-55	14.2	13.6	Germany, Fed- eral Republic ..	1955	15.1	14.2
Denmark ..	1951-55	14.3	13.8	Scotland ..	1955-57	15.2	14.1
New Zealand(c) ..	1950-52	14.6	13.8	France ..	1952-56	15.4	14.1
England and Wales ..	1957	14.7	13.6	Ireland, Re- public of ..	1950-52	15.5	14.9
Northern Ire- land ..	1954-56	14.8	14.1	Union of South Africa(e) ..	1945-47	15.7	14.6
United States of America— Whites ..	1956	14.9	13.6	Japan ..	1957	15.8	14.8
Others ..	1956	16.4	15.2	Finland ..	1951-55	15.8	14.3
Australia(d) ..	1953-55	14.9	13.7	Belgium ..	1946-49	16.1	14.9
				Austria ..	1949-51	16.2	14.9

(a) Number of deaths per 1,000 males in life table or stationary population (see explanation on p. 351).

(b) Number of deaths per 1,000 females in life table or stationary population (see explanation on p. 351).

(c) Excludes Maoris.

(d) Excludes full-blood aborigines.

(e) White population only.

7. *Australian Life Tables.*—(i) *Life Tables prior to 1954.* It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–1890, 1891–1900 and 1901–1910. These compilations furnished a comprehensive view of Australian mortality in respect of sex, of time, and of geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901–1910 were prepared and published.

At the Census of 1921, Life Tables were prepared by the Commonwealth Statistician from the population recorded and the deaths in the three years 1920 to 1922. In 1933 and 1947, Life Tables based on the census population and the deaths in the years 1932 to 1934 and 1946 to 1948 respectively were compiled by the Commonwealth Actuary.

(ii) *Life Tables of Census of 1954.* On the occasion of the 1954 Census, the seventh in the series of Life Tables were compiled by the Commonwealth Actuary. These were based on the population recorded at the Census, adjusted to allow for variation in the net movement into Australia over the years 1953 to 1955, and deaths during these years. Full particulars of the data used, the method of construction and the tabulations of these Life Tables will be found in the report of the Commonwealth Actuary which was published by the Commonwealth Statistician in 1958. This report will also appear in Volume VIII of the detailed tables of the 1954 Census.

The main features of the tables, including comparisons with earlier Australian tables and the latest experience in the United Kingdom and New Zealand are set out in the following summary tables.

COMPARATIVE TABLES.

1. RATES OF MORTALITY (q_x) AT REPRESENTATIVE AGES.

Age (x).				1901–10.	1920–22.	1932–34.	1946–48.	1953–55.
MALES.								
0	..	..	..	.09510	.07132	.04543	.03199	.02521
10	..	..	..	.00179	.00156	.00119	.00072	.00056
20	..	..	..	.00370	.00284	.00219	.00169	.00186
30	..	..	..	.00519	.00390	.00271	.00186	.00170
40	..	..	..	.00816	.00617	.00460	.00337	.00297
50	..	..	..	.01395	.01158	.00966	.00919	.00819
60	..	..	..	.02584	.02407	.02216	.02278	.02221
70	..	..	..	.06162	.05290	.05082	.05256	.05315
80	..	..	..	.13795	.13340	.12659	.12011	.11958
FEMALES.								
0	..	..	..	.07953	.05568	.03642	.02519	.01989
10	..	..	..	.00159	.00127	.00087	.00050	.00035
20	..	..	..	.00329	.00252	.00183	.00091	.00064
30	..	..	..	.00519	.00387	.00279	.00165	.00096
40	..	..	..	.00718	.00524	.00402	.00284	.00217
50	..	..	..	.00956	.00808	.00744	.00641	.00530
60	..	..	..	.01920	.01571	.01466	.01360	.01203
70	..	..	..	.04777	.04090	.03802	.03607	.03250
80	..	..	..	.11333	.11230	.10106	.10027	.09314

2. RATES OF MORTALITY FOR ONE PERIOD AS A PROPORTION OF THE RATES FOR THE PRECEDING PERIOD.

Age.		Males.				Females.			
		1920–22	1932–34	1946–48	1953–55	1920–22	1932–34	1946–48	1953–55
		1901–10.	1920–22.	1932–34.	1946–48.	1901–10.	1920–22.	1932–34.	1946–48.
0	..	.75	.64	.70	.79	.70	.65	.69	.79
10	..	.87	.76	.61	.78	.80	.69	.57	.70
20	..	.77	.77	.77	1.10	.77	.73	.50	.70
30	..	.75	.69	.69	.91	.75	.72	.59	.58
40	..	.76	.75	.73	.88	.73	.77	.71	.76
50	..	.83	.83	.95	.89	.85	.92	.86	.83
60	..	.93	.92	1.03	.97	.82	.93	.93	.88
70	..	.86	.96	1.03	1.01	.86	.93	.95	.90
80	..	.97	.95	.95	1.00	.99	.90	.99	.93

3. RATES OF MORTALITY FOR PERIODS SINCE 1901-10
AS A PROPORTION OF THE RATES FOR THE PERIOD 1901-10.

Age.	Males.				Females.			
	1920-22	1932-34	1946-48	1953-55	1920-22	1932-34	1946-48	1953-55
	1901-10.	1901-10.	1901-10.	1901-10.	1901-10.	1901-10.	1901-10.	1901-10.
0 ..	.75	.48	.34	.27	.70	.46	.32	.25
10 ..	.87	.66	.40	.31	.80	.55	.31	.22
20 ..	.77	.59	.46	.50	.77	.56	.28	.19
30 ..	.75	.52	.36	.33	.75	.54	.32	.18
40 ..	.76	.56	.41	.36	.73	.56	.40	.30
50 ..	.83	.69	.66	.59	.85	.78	.67	.55
60 ..	.93	.86	.88	.86	.82	.76	.71	.63
70 ..	.86	.82	.85	.86	.86	.80	.76	.68
80 ..	.97	.92	.87	.87	.99	.89	.88	.82

4. NUMBER OF SURVIVORS (l_x) AT SELECTED AGES OUT OF 100,000 BIRTHS.

Age (x).	Males.				Females.			
	1920-22.	1932-34.	1946-48.	1953-55.	1920-22.	1932-34.	1946-48.	1953-55.
0 ..	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
10 ..	89,389	93,193	95,619	96,488	91,314	94,424	96,549	97,228
20 ..	87,697	91,797	94,562	95,460	89,906	93,341	95,953	96,774
30 ..	84,743	89,566	92,967	93,801	87,086	91,174	94,740	96,055
40 ..	80,813	86,539	90,823	91,861	83,279	88,175	92,758	94,715
50 ..	74,330	81,061	85,946	87,553	78,313	83,680	89,011	91,573
60 ..	63,386	69,950	74,251	76,256	70,150	75,565	81,257	84,665
70 ..	44,332	50,086	52,230	54,054	54,771	59,629	65,398	69,613
80 ..	18,614	22,223	22,785	23,658	27,170	31,539	35,401	39,633
90 ..	2,141	2,935	3,144	3,507	4,238	5,808	6,556	8,087

5. COMPLETE EXPECTATION OF LIFE (e_x^0) AT SELECTED AGES.

Age (x).	Males.				Females.			
	1920-22.	1932-34.	1946-48.	1953-55.	1920-22.	1932-34.	1946-48.	1953-55.
0 ..	59.15	63.48	66.07	67.14	63.31	67.14	70.63	72.75
10 ..	56.01	58.02	59.04	59.53	59.20	61.02	63.11	64.78
20 ..	46.99	48.81	49.64	50.10	50.03	51.67	53.47	55.06
30 ..	38.44	39.90	40.40	40.90	41.48	42.77	44.08	45.43
40 ..	30.05	31.11	31.23	31.65	33.14	34.04	34.91	36.00
50 ..	22.20	22.83	22.67	22.92	24.90	25.58	26.14	27.03
60 ..	15.08	15.57	15.36	15.47	17.17	17.74	18.11	18.78
70 ..	9.26	9.60	9.55	9.59	10.41	10.98	11.14	11.62
80 ..	5.00	5.22	5.36	5.47	5.61	6.01	6.02	6.30

6. RATES OF MORTALITY (q_x) AT SELECTED AGES FROM 1953-55 EXPERIENCE COMPARED WITH RECENT RATES OF MORTALITY FOR THE UNITED KINGDOM AND NEW ZEALAND.

Age (x).	Males.			Females.		
	Australia 1953-55.	United Kingdom 1950-52.	New Zealand 1950-52.	Australia 1953-55.	United Kingdom 1950-52.	New Zealand 1950-52.
0 .. ..	.02521	.03266	.02499	.01989	.02510	.01995
10 .. ..	.00056	.00052	.00050	.00035	.00035	.00028
20 .. ..	.00186	.00129	.00161	.00064	.00083	.00068
30 .. ..	.00170	.00157	.00160	.00096	.00127	.00110
40 .. ..	.00297	.00290	.00268	.00217	.00227	.00209
50 .. ..	.00819	.00850	.00727	.00530	.00524	.00552
60 .. ..	.02221	.02369	.01951	.01203	.01271	.01316
70 .. ..	.05315	.05651	.04723	.03250	.03532	.03282
80 .. ..	.11958	.13629	.11260	.09314	.10466	.09334

7. RATES OF MORTALITY FROM 1953-55 AUSTRALIAN EXPERIENCE, AS A PROPORTION OF THE RATES FOR THE UNITED KINGDOM AND NEW ZEALAND.

Age (x).	Males.		Females.	
	Australia 1953-55 United Kingdom 1950-52.	Australia 1953-55 New Zealand 1950-52.	Australia 1953-55 United Kingdom 1950-52.	Australia 1953-55 New Zealand 1950-52.
0 .. ..	.77	1.01	.79	1.00
10	1.08	1.12	1.00	1.25
20	1.44	1.16	.77	.94
30	1.08	1.06	.76	.87
40	1.02	1.11	.96	1.04
50 .. ..	.96	1.13	1.01	.96
60 .. ..	.94	1.14	.95	.91
70 .. ..	.94	1.13	.92	.99
80 .. ..	.88	1.06	.89	1.00

The main features of the mortality rates are:—

(a) *Male Mortality.* With the exception of ages 16 to 26 inclusive, and 69 to 73 inclusive, the 1953-55 mortality rates are less than those for 1946-48. The most significant reduction has occurred at age 0, where the mortality rate is 79 per cent. of the corresponding rate for 1946-48, and only 27 per cent. of the experience for the period 1901-1910.

The most disturbing feature of the current experience has been the increase in mortality which has occurred in the 16-26 age group. This is the result of heavier mortality from accidents of all types, which has more than counterbalanced a decrease in the rates of mortality due to other causes.

At advanced ages, the experience suggests that only a slight improvement in male mortality has occurred since 1946-48.

(b) *Female Mortality.* The comparative tables above show that very substantial decreases in female mortality rates have occurred over the whole range of ages since the 1946-48 experience. This improvement has been considerably greater overall than that for males.

Accident mortality among females, which has never been as significant as among males has increased very slightly but this increase has been more than offset by the reduction in the mortality from other causes. There is a notable disparity between the high male accident rate and the low female rate.

In the 1946-48 experience, female mortality from causes other than accident was, in the age range 20 to 39 years, heavier than the corresponding male mortality. For 1953-55, however, the position has been reversed. At high ages the female mortality rates have shown substantially greater improvement since 1946-48 than the male rates.

8. Infant Deaths and Death Rates.—(i) *States.* (a) *Under One Year.* For each State and Territory the number of deaths under one year of age and the rates of infant mortality during the period 1931 to 1959 were as follows:—

INFANT MORTALITY: UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1931-35 ..	1,885	1,214	690	304	329	202	6	5	4,635
1936-40 ..	1,963	1,139	718	311	352	201	6	5	4,695
1941-45 ..	2,034	1,311	804	413	347	213	7	7	5,136
1946-50 ..	1,990	1,129	770	431	370	187	11	14	4,902
1951-55 ..	1,852	1,113	730	407	384	184	17	14	4,701

ANNUAL TOTALS.									
1955 ..	1,850	1,035	656	431	373	189	26	12	4,572
1956 ..	1,777	1,128	737	377	384	170	24	11	4,608
1957 ..	1,804	1,219	732	403	357	170	22	10	4,717
1958 ..	1,704	1,178	657	449	360	167	22	23	4,560
1959 ..	1,832	1,320	721	422	345	202	31	16	4,889

AVERAGE ANNUAL RATES.(a)									
1931-35 ..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936-40 ..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941-45 ..	35.95	34.50	34.30	32.95	33.30	39.31	61.73	18.72	34.97
1946-50 ..	28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1951-55 ..	25.11	20.70	23.58	22.55	24.41	23.67	36.28	15.40	23.34

ANNUAL RATES.(a)									
1955 ..	24.86	18.37	20.28	23.30	22.44	23.37	50.49	13.94	22.01
1956 ..	23.47	19.32	22.74	19.88	22.70	20.98	43.17	10.21	21.72
1957 ..	22.70	20.16	21.68	20.63	21.09	20.15	34.06	8.82	21.41
1958 ..	21.29	19.23	19.40	22.40	21.52	19.49	31.56	18.04	20.49
1959 ..	22.65	21.21	20.25	20.71	20.16	23.42	38.94	11.75	21.54

(a) Number of deaths of children aged under one year per 1,000 live births registered.

(b) *Under Four Weeks.* The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1931 to 1958.

INFANT MORTALITY RATES(a): UNDER FOUR WEEKS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931-35 ..	27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936-40 ..	27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1941-45 ..	24.52	24.40	24.41	20.86	20.60	27.24	33.57	12.54	23.97
1946-50 ..	20.53	17.55	19.95	18.38	19.53	19.34	21.45	15.80	19.34
1951-55 ..	17.34	15.18	17.09	14.95	17.27	16.34	19.63	11.28	16.45

ANNUAL RATES.									
1954 ..	17.70	14.42	16.81	15.25	16.07	16.47	7.80	3.50	16.19
1955 ..	17.31	13.49	14.84	14.11	16.00	16.81	33.01	11.61	15.49
1956 ..	16.97	14.13	16.35	13.55	15.90	14.56	30.58	7.43	15.60
1957 ..	16.39	15.02	15.22	13.77	15.13	13.63	18.58	7.06	15.36
1958 ..	15.30	14.48	13.76	13.72	14.35	12.37	17.22	11.76	14.50

(a) Number of deaths of children aged under four weeks per 1,000 live births registered.

(c) *Four Weeks and under One Year.* Infant mortality rates for children aged four weeks and under one year are shown in the following table for the period 1931 to 1958.

INFANT MORTALITY RATES(a): FOUR WEEKS AND UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931-35 ..	14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936-40 ..	13.55	11.69	10.60	11.46	17.08	11.67	16.00	5.45	12.62
1941-45 ..	11.77	10.33	10.14	12.34	12.77	12.30	22.40	6.21	11.27
1946-50 ..	8.38	6.27	7.54	8.12	8.62	7.19	15.92	4.09	7.64
1951-55 ..	7.77	5.52	6.49	7.60	7.14	7.33	16.65	4.12	6.89
ANNUAL RATES.									
1954 ..	7.60	4.88	5.48	6.04	6.47	7.47	9.74	1.17	6.29
1955 ..	7.55	4.88	5.44	9.19	6.44	6.56	17.48	2.33	6.51
1956 ..	6.50	5.19	6.39	6.33	6.80	6.42	12.59	2.79	6.12
1957 ..	6.31	5.14	6.46	6.86	5.96	6.52	15.48	1.76	6.05
1958 ..	5.98	4.75	5.64	8.68	7.17	7.12	14.35	6.27	5.99

(a) Number of deaths of children aged four weeks and under one year per 1,000 live births registered.

(ii) *Australia. (a) Under One Year.* The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births, is confirmed by the fact that out of 546,788 male infants born from 1954 to 1958, 13,098 (23.95 per 1,000) died during the first year of life, while of 518,140 female infants only 9,905 (19.12 per 1,000) died during the first year. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES: AUSTRALIA.

Period.	Number of Deaths.						Rates.(a)					
	Neonatal— Under Four Weeks.		Post- Neonatal— Four Weeks and under One Year.		Total under One Year.		Neonatal— Under Four Weeks.		Post- Neonatal— Four Weeks and under One Year.		Total under One Year.	
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.
ANNUAL AVERAGES.												
1931-35 ..	1,763	1,299	886	687	2,649	1,986	30.62	23.73	15.38	12.55	46.00	36.28
1936-40 ..	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16
1941-45 ..	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93
1946-50 ..	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70
1951-55 ..	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56
ANNUAL TOTALS.												
1954 ..	1,914	1,361	694	577	2,608	1,938	18.48	13.79	6.70	5.85	25.18	19.64
1955 ..	1,863	1,355	762	592	2,625	1,947	17.50	13.39	7.16	5.84	24.66	19.23
1956 ..	1,879	1,430	704	595	2,583	2,025	17.15	13.95	6.42	5.80	23.57	19.75
1957 ..	1,953	1,431	740	593	2,693	2,024	17.25	13.36	6.53	5.53	23.78	18.89
1958 ..	1,822	1,404	767	567	2,589	1,971	15.99	12.93	6.73	5.23	22.72	18.16
AVERAGE ANNUAL RATES.												
ANNUAL RATES.												

(a) Number of deaths per 1,000 male or female live births registered.

(b) *Under Four Weeks.* The following table shows particulars of infant deaths in the first four weeks of life, or the neonatal period, from 1931 to 1958. It will be seen that, for both males and females, the risk of death is very much greater during the first day of life than subsequently.

INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS: AUSTRALIA.

Period.	Number of Deaths.						Rates.(a)											
	Early Neonatal.				Late Neonatal— One Week and under Four Weeks.		Early Neonatal.				Late Neonatal— One Week and under Four Weeks.							
	Under One Day.		One Day and under One Week.				Under One Day.		One Day and under One Week.									
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.						
ANNUAL AVERAGES.													AVERAGE ANNUAL RATES.					
1931-35	..	(b)	(b)	c 1,442	c 1,066	321	233	(b)	(b)	c 25.04	c 19.48	5.58	4.25					
1936-40	..	(b)	(b)	c 1,496	c 1,120	320	233	(b)	(b)	c 24.13	c 18.99	5.17	3.94					
1941-45	..	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91					
1946-50	..	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49					
1951-55	..	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89					
ANNUAL TOTALS.													ANNUAL RATES.					
1954	..	943	696	725	520	246	245	9.11	7.05	7.00	5.27	2.37	1.47					
1955	..	889	686	740	496	234	173	8.35	6.78	6.95	4.90	2.20	1.71					
1956	..	933	754	714	478	232	198	8.51	7.36	6.52	4.66	2.12	1.93					
1957	..	1,029	795	677	472	247	164	9.09	7.42	5.98	4.41	2.18	1.53					
1958	..	927	737	659	486	236	181	8.14	6.79	5.78	4.48	2.07	1.66					

(a) Number of deaths per 1,000 live births registered.
under one day.

(b) Not available.

(c) Includes

The foregoing tables indicate the decrease in infant mortality in Australia, the mortality rate of children aged under one year per 1,000 live births for 1958 being 50 per cent. of the average rate for 1931-35. The improvement was due largely to the decrease in deaths from preventable causes, the mortality rate for children aged one week but under one year of age declining by 58 per cent., while that for children aged under one week declined by 43 per cent.

A graph showing infant mortality rates for each year from 1910 to 1959 will be found on page 337.

(iii) *Statistical Divisions.* The total numbers of births and of deaths of children under one year of age in each statistical division are shown in the annual bulletin, *Demography*.

(iv) *Various Countries.* Compared with other countries Australia occupies a favourable position in respect of infant mortality. In 1958, only New Zealand, Sweden and the Netherlands recorded a lower rate than Australia.

INFANT MORTALITY RATES: VARIOUS COUNTRIES.

Country.	Infant Mortality Rate.(a)						Crude Birth Rate(b), 1958.
	1921-25.	1926-30.	1931-35.	1936-40.	1957.	1958.	
Sweden ..	60	58	50	42	17	16	14.2
Netherlands ..	64	56	45	37	17	17	21.1
New Zealand(c) ..	43	37	32	32	20	19	25.2
Norway ..	52	49	45	(d) 40	20	(e)	18.1
Australia(f) ..	58	52	41	39	21	20	22.6
Switzerland ..	65	54	48	45	23	22	17.6
Denmark ..	82	82	71	60	23	22	16.6
United Kingdom ..	78	70	65	59	24	23	16.8
Finland ..	96	88	72	72	28	25	18.5
United States of America ..	74	68	59	51	26	27	24.3
Union of South Africa (g) ..	73	67	63	53	29	(e)	25.7
Canada ..	98	93	75	64	31	30	27.6
Belgium ..	100	95	82	77	35	31	17.0
France ..	95	89	73	70	34	32	18.2
Ireland, Republic of ..	69	70	68	69	33	35	20.9
Japan ..	159	137	120	(h) 112	40	35	18.0
Austria ..	136	117	99	81	44	41	16.9
Spain ..	143	124	113	121	48	48	21.9
Italy ..	127	119	105	103	50	48	17.9
Yugoslavia ..	(e)	151	153	(h) 141	101	86	23.8

(a) Number of deaths under one year per 1,000 live births registered. (b) Number of live births per 1,000 of mean or mid-year population. (c) Excludes Maoris. (d) 1935-39.

(e) Not available. (f) Excludes full-blood aboriginals. (g) White population only.

(h) 1935-38.

(v) *Causes of Death: Children under one Year.* Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. In 1958, congenital malformations (13.2 per cent.) and certain diseases of early infancy (84.7 per cent.) accounted for 97.9 per cent. of deaths in the first week of life. These causes accounted for 81.2 per cent. of the deaths in the second, third and fourth weeks of life (38.8 per cent. and 42.4 per cent. respectively). Of the remaining deaths in the first year of life, these causes only accounted for 25.6 per cent. (21.7 per cent. and 3.9 per cent. respectively), the emphasis having shifted to respiratory and digestive diseases (34.6 per cent.), accidents and violence (7.7 per cent.), infective and parasitic diseases (5.4 per cent.) and diseases of the nervous system (5.7 per cent.). A summary for 1958 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE, AUSTRALIA, 1958.

Cause of Death.	Age at Death.															Under One Year
	Weeks.				Months.											
	Under 1.	1.	2.	3.	1. (a)	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	
Tuberculosis .. .. .	..	..	..	1	..	..	..	1	..	..	..	1	..	..	3
Septicaemia and pyaemia ..	..	3	2	2	8	4	8	5	1	3	4	1	4	2	47
Bacillary dysentery .. ..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2
Whooping cough .. .. .	..	..	..	..	..	2	1	2	..	2	1	..	1	2	12
Meningococcal infections ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Measles .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Other infective and parasitic diseases	1	3	1	..	1	..	4	1	1	2	..	1	2	4	21	
Neoplasms	1	2	..	..	3	1	1	4	1	1	..	..	1	1	18
Allergic, endocrine system, etc., diseases	4	..	..	3	4	1	1	..	1	2	1	..	..	2	19
Diseases of the blood	2	1	1	..	1	..	1	..	..	1	1	1	1	..	9
Mental, etc., disorders	3	..	..	1	..	3	3	3	..	2	1	1	4	3	24
Meningitis	4	6	2	3	5	3	1	2	7	4	3	..	..	3	43
Intracranial and intraspinal abscess	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Encephalitis .. .. .	..	..	..	..	1	1	1	..	1	..	..	..	..	1	7
Otitis media and mastoiditis ..	..	..	..	..	3	..	4	3	..	1	2	1	1	..	16
Other diseases of the nervous system, etc.	1	2	..	..	6	4	3	1	1	3	2	2	1	..	1
Diseases of the circulatory system ..	..	3	1	..	..	1	..	5	..	4	1	1	1	3	2
Pneumonia, age four weeks and over	..	..	..	..	58	48	54	43	36	27	25	21	16	18	359
Bronchitis .. .. .	..	..	1	..	3	..	8	..	3	5	1	2	1	4	29
Other diseases of the respiratory system	5	2	1	..	13	11	8	7	5	6	5	5	8	1	6	
Hernia and intestinal obstruction ..	20	4	..	2	3	2	2	2	3	..	..	..	..	1	83
Gastro-enteritis and colitis, age four weeks and over	..	..	..	..	16	15	13	12	8	7	15	11	5	6	120
Other diseases of the digestive system	6	8	5	..	7	5	6	6	2	3	2	2	3	2	63	
Diseases of the genito-urinary system	..	..	..	1	..	..	2	2	..	2	..	1	..	1	9
Diseases of the skin and cellular tissue	..	2	4	..	1	..	..	1	..	1	1	..	2	1	14
Diseases of the bones and organs of movement	..	1	..	1	..	1	1	1	1	1	..	1	1	..	8	
Congenital malformations	371	84	41	37	76	39	36	33	20	25	9	13	18	10	822	
Certain diseases of early infancy(b) ..	720	55	32	24	11	4	10	3	3	1	2	1	..	3	869	
Without mention of immaturity(b) ..	1,658	48	10	8	12	1	1	..	..	..	..	..	..	..	1,738
With immaturity(b)	6	1	..	1	..	..	3	2	1	1	1	..	1	..	17
Symptoms and ill-defined conditions	7	..	6	1	12	10	13	11	13	7	12	4	2	8	117	
Accidents, poisonings and violence	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
All Causes	2,809	226	107	84	245	156	185	151	118	111	82	73	78	64	4,560	

(a) Age four weeks and under two months.

(b) For further detail of this group of causes see next table.

The individual categories representing the causes of death which come within Class XV.—Certain Diseases of Early Infancy are designed to show the effect of immaturity in such causes of infant death. In 1958, 67 per cent. of deaths in this class during the first four weeks of life were due, directly or indirectly, to immaturity. Particulars of the individual categories in this class are shown for various age groups, with and without mention of immaturity, in the following table. Details of cause of death without mention of immaturity are in italics. In respect of deaths which occur in the first week of life ages are shown in days and in weeks for deaths which occur in the first month of life.

**DEATHS OF CHILDREN UNDER FOUR WEEKS OF AGE FROM CERTAIN
DISEASES OF EARLY INFANCY: AUSTRALIA, 1958.**

Category No.	Cause of Death.(a)	Age at Death.											
		Days.						Total under one week.	Weeks.			Total under four weeks.	
		0.	1.	2.	3.	4.	5.		6.	1.	2.		3.
760	Intracranial and spinal injury at birth	82	38	28	24	13	9	4	198	12	4	1	215
		67	34	12	9	4	2	2	130	3	..	1	134
761	Other birth injury	72	7	12	6	2	..	1	100	4	..	..	104
		124	24	6	3	1	1	..	159	3	..	2	164
762	Post-natal asphyxia and atelectasis	125	34	20	6	6	3	..	194	9	..	3	206
		191	61	33	8	6	2	2	303	6	..	..	309
763	Pneumonia of the newborn	8	15	9	19	5	4	5	65	17	18	8	108
		2	5	4	5	1	4	3	24	8	5	1	38
764	Diarrhoea of the newborn .. ..	..	..	1	..	..	..	..	1	2	2	4	8
		..	..	..	..	..	..	..	..	..	..	..	1
765	Ophthalmia neonatorum .. ..	..	..	..	..	..	..	..	..	..	..	..	..
766	Pemphigus neonatorum .. ..	..	..	..	..	..	..	..	..	..	..	1	1
767	Umbilical sepsis .. ..	..	..	..	..	..	..	1	1	1	2	1	5
		..	..	..	1	..	..	..	1	2	4	2	8
768	Other sepsis of newborn .. ..	..	..	1	1	1	..	1	4	..	1	..	5
	
769	Neonatal disorders arising from maternal toxæmia..	11	27	4	4	2	..	1	13	1	..	..	14
		20	1	3	1	..	1	1	27	..	..	1	28
770	Haemolytic disease of newborn (erythroblastosis) ..	60	9	7	7	1	..	2	86	3	1	..	90
		20	1	3	1	..	1	1	27	..	..	1	28
771	Haemorrhagic disease of newborn	9	5	4	6	6	3	2	35	3	1	..	39
		2	4	1	1	..	..	2	10	1	..	..	11
772	Nutritional maladjustment .. ..	..	..	..	..	..	..	..	..	..	..	1	1
	
773	Ill-defined diseases peculiar to early infancy	14	7	4	1	1	1	..	28	1	..	3	32
		39	12	5	4	3	6	..	69	1	1	..	71
774	Immaturity with mention of any other subsidiary condition ..	4	6	4	..	1	..	..	15	2	..	..	17
776	Immaturity unqualified	592	151	56	33	16	18	5	871	22	3	3	899
	Total without mention of immaturity	381	115	84	71	34	20	15	720	55	32	34	831
	Total with mention of immaturity	1,068	302	130	73	33	35	17	1,658	48	10	8	1,724
	Total, Class XV.	1,449	417	214	144	67	55	32	2,378	103	42	32	2,515

(a) Figures in italics are "without mention of immaturity", figures in ordinary type are "with mention of immaturity."

(vi) *Deaths of Ex-nuptial Children under one Year of Age.* Distinction between nuptial and ex-nuptial children in death statistics for Australia as a whole was made from 1925 to 1958. Results show that death rates during infancy were higher for ex-nuptial children than for nuptial children, but in recent years this position was reversed.

Detailed information for Australia as to the age at which ex-nuptial children died from each cause of death will be found in the annual bulletin, *Demography*, up to issue No. 76, 1958. Because of the small number of ex-nuptial deaths involved in each case, it is difficult to assess the real significance of the differences between the numbers of nuptial and ex-nuptial deaths from each individual cause.

9. *Age Distribution.*—(i) *Number of Deaths.* Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years and thereafter the five-year groups 5–9 years, 10–14 years, etc. A summary in this form for Australia is given in the following table for the year 1958.

AGE AT DEATH: AUSTRALIA, 1958.

Age at Death.	Males.	Females.	Persons.	Age at Death.	Males.	Females.	Persons.
Under 1 week ..	1,586	1,223	2,809	5-9 years ..	292	185	477
1 week and under 2 weeks ..	121	105	226	10-14 ..	225	155	380
2 weeks and under 3 weeks ..	60	47	107	15-19 ..	461	162	623
3 weeks and under 4 weeks ..	55	29	84	20-24 ..	627	181	808
				25-29 ..	547	214	761
				30-34 ..	666	347	1,013
Total under 4 weeks ..	1,822	1,404	3,226	35-39 ..	841	540	1,381
				40-44 ..	1,114	781	1,895
				45-49 ..	1,901	1,097	2,998
4 weeks and under 3 months	237	164	401	50-54 ..	2,677	1,433	4,110
3 months and under 6 ..	275	179	454	55-59 ..	3,580	1,860	5,440
6 months and under 12 ..	255	224	479	60-64 ..	4,643	2,766	7,409
				65-69 ..	6,231	3,905	10,136
				70-74 ..	6,597	5,066	11,663
Total under 1 year ..	2,589	1,971	4,560	75-79 ..	5,787	5,502	11,289
				80-84 ..	4,149	4,911	9,060
				85-89 ..	2,476	3,449	5,925
1 year ..	234	174	408	90-94 ..	881	1,391	2,272
2 years ..	165	127	292	95-99 ..	176	306	482
3 ..	86	60	146	100 years and over	11	20	31
4 ..	72	64	136	Age not stated ..	22	6	28
Total under 5 years ..	3,146	2,396	5,542				
				Total, All Ages ..	47,050	36,673	83,723

There are different mortality rates at various stages of life and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups.

In Australia, during the last fifty years, there has been a steady decline in the rate of mortality at all ages. This has been most pronounced at ages under one year. The increased length of life due to this factor coupled with the long-term decline in the birth rate and the effects of past and present migration, has been a significant cause in changing the age distribution of the population and consequently the age distribution of deaths, thus obscuring the effects of declining mortality rates.

The combined effect of these various influences can be seen from the following table which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1950 and for the year 1958.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA.
(Per Cent.)

Period.	Age at Death (Years).								
	Under 1.	1-4.	5-19.	20-39.	40-59.	60-64.	65 and over.	Unspecified.	Total.
1901-10 ..	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911-20 ..	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921-30 ..	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931-40 ..	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941-50 ..	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1958—									
Males ..	5.50	1.18	2.08	5.70	19.71	9.87	55.91	0.05	100.00
Females ..	5.37	1.16	1.37	3.50	14.10	7.54	66.94	0.02	100.00
Persons ..	5.45	1.17	1.77	4.73	17.25	8.85	60.75	0.03	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Official Year Book No. 39, page 614.

(ii) *Age-specific Death Rates.* In previous issues of the Official Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932-34, 1946-48 and 1953-55 (see Official Year Books, No. 37, page 778; No. 39, pages 615-6 and No. 44, pages 640-1). These rates were based on the age distribution of the population at the relevant censuses.

Intercensal estimates of the age distribution of the population are available only for Australia as a whole and not for the individual States. As a consequence, age-specific death rates for States are not available. The following table shows age-specific death rates for Australia for the years 1956, 1957 and 1958.

AGE-SPECIFIC DEATH RATES(a): AUSTRALIA.

Age Group (Years).	1956.	1957.	1958.	Age Group (Years).	1956.	1957.	1958.
0-4 ..	5.67	5.71	5.32	50-54 ..	8.01	7.85	7.82
5-9 ..	0.46	0.49	0.48	55-59 ..	12.93	12.68	12.35
10-14 ..	0.47	0.46	0.42	60-64 ..	20.63	20.16	19.50
15-19 ..	0.91	1.01	0.91	65-69 ..	32.13	31.58	30.70
20-24 ..	1.29	1.23	1.29	70-74 ..	53.02	51.24	48.37
25-29 ..	1.21	1.25	1.13	75-79 ..	83.16	78.21	77.87
30-34 ..	1.45	1.56	1.34	80-84 ..	139.94	129.84	120.80
35-39 ..	1.96	1.97	1.94	85-89 ..	215.14	202.55	211.99
40-44 ..	3.02	2.99	2.83	90 and over ..	337.91	324.21	305.07
45-49 ..	4.97	4.85	4.92				

(a) Average number of deaths per 1,000 of population in each age group.

10. *Causes of Death.*—The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia from 1950 to 1957. The Seventh Revision was first used for deaths which occurred during 1958. The Sixth Revision, for the first time in connexion with the International List, laid down rules for a uniform method of selecting the main cause to be tabulated, if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950, the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform with successive revisions of the International List.

The adoption of the new method, introduced with the Sixth Revision and maintained in the Seventh, marked a fundamental change in Australian cause of death statistics, with emphasis now placed on the underlying cause of death as indicated by the certifying practitioner. The introduction of this method required the adoption by all States of a form of medical certificate substantially identical with the International Form of Medical Certificate of Cause of Death as laid down in Article 9 of the World Health Organization Regulations No. 1. By 1950, all States had adopted satisfactory forms of certificate and it was possible to apply the new principles uniformly to all State cause of death records.

This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. For convenience in assessing the extent of the change and in accordance with a recommendation of the Sixth Decennial Revision Conference, causes of death for Australia for 1950 were also classified according to the detailed classification of

the Fifth Revision, on the joint cause rules current for that revision. A complete detailed classification according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68. Commencing with 1951, the classification is according to the Sixth Revision only and for 1958, the Seventh Revision was used. Except in a few instances comparability was maintained with the introduction of the Seventh Revision. *Demography*, Bulletin No. 76, 1958, indicates the few instances in which comparability was affected by the use of the Seventh Revision.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—The Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations A to C which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and B show deaths of males and females in age groups, respectively, for 1958 and Table C shows the total numbers of males and females who died and the death rates per million of mean population and percentage of total deaths for 1958.

A.—CAUSES OF DEATH: MALES, 1958.

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).									Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.	
B 1 Tuberculosis of respiratory system ..	001-008	1	1	..	..	15	21	83	103	158	382
B 2 Tuberculosis, other forms ..	010-019	1	1	1	3	2	..	2	7	6	23
B 3 Syphilis and its sequelae ..	020-029	..	..	..	..	..	5	11	29	55	101
B 4 Typhoid fever ..	040	..	..	..	..	1	2	1	..	..	3
B 6 Dysentery, all forms ..	045-048	1	4	3	..	..	..	1	1	..	10
B 9 Whooping cough ..	056	2	..	..	..	..	..	..	..	..	2
B10 Meningococcal infections ..	057	11	7	1	1	1	..	..	..	1	22
B12 Acute poliomyelitis ..	080	..	1	1	..	..	..	..	..	..	2
B14 Measles ..	085	..	4	4	1	..	..	..	1	..	10
B17 All other diseases classified as infective and parasitic ..	(b)	37	22	20	11	14	8	24	12	36	184
Malignant neoplasms of:											
Digestive organs and peritoneum ..	150-159	..	1	2	2	25	96	309	619	1,781	2,835
Lung ..	162, 163	1	..	1	2	9	38	168	422	594	1,235
Breast ..	170	..	..	..	..	..	1	3	5	9	18
B18 { Genital Organs ..	171-179	..	2	..	3	11	6	21	72	679	794
Urinary organs ..	180, 181	1	8	2	1	3	7	44	100	211	377
Leukaemia and aleuk-aemia ..	204	3	36	26	22	10	21	36	50	97	301
Other malignant and lymphatic neoplasms ..	(c)	2	11	33	44	46	101	188	296	552	1,273
B19 Benign and unspecified neoplasms ..	210-239	2	1	3	6	12	16	26	17	32	115
B20 Diabetes mellitus ..	260	..	1	1	1	5	14	31	92	259	404
B21 Anaemias ..	290-293	1	1	1	1	..	1	4	12	75	96
B22 Vascular lesions affecting central nervous system ..	330-334	2	3	4	13	41	113	358	822	3,607	4,963
B23 Non-meningococcal meningitis ..	340	23	14	5	3	3	..	3	4	6	61
B24 Rheumatic fever ..	400-402	..	..	5	4	2	3	2	2	2	20
B25 Chronic rheumatic heart disease ..	410-416	..	..	2	17	18	36	58	81	118	330
B26 { Arteriosclerotic heart disease ..	420	..	..	..	2	43	338	1,394	2,794	6,824	11,395
Degenerative heart disease ..	421, 422	3	2	2	7	11	39	106	284	2,357	2,811
B27 Other diseases of heart ..	430-434	8	4	5	8	17	27	93	170	1,109	1,441
B28 Hypertension with heart disease ..	440-443	..	..	1	..	1	10	55	136	617	820
B29 Hypertension without mention of heart ..	444-447	1	..	..	1	10	30	63	103	340	548
B30 Influenza ..	480-483	6	..	3	2	3	5	9	12	29	69
B31 Pneumonia ..	490-493	206	84	13	15	19	37	89	178	975	1,616
B32 Bronchitis ..	500-502	22	14	5	..	3	5	48	143	567	807
B33 Ulcer of stomach and duodenum ..	540, 541	..	2	..	1	7	24	62	116	286	498
B34 Appendicitis ..	550-553	..	7	6	3	11	4	6	10	27	74

For footnotes see following page.

A.—CAUSES OF DEATH: MALES, 1958—*continued*.ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued*.

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B35 Intestinal obstruction and hernia ..	560, 561, 570	26	2	1	1	2	11	19	38	187	287	
B36 Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of the newborn ..	543, 571, 572	67	25	9	4	3	10	10	20	98	246	
B37 Cirrhosis of liver ..	581	5	1	1	3	6	26	75	112	99	328	
B38 Nephritis and nephrosis ..	590-594	2	6	9	27	40	81	96	126	268	655	
B39 Hyperplasia of prostate ..	610	..	..	..	..	..	..	2	39	472	513
B41 Congenital malformations ..	750-759	455	53	34	14	16	16	17	17	8	630	
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	671	1	..	..	..	..	..	..	..	672
B43 Infections of the new born ..	763-768	96	..	..	..	..	..	..	..	..	96
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	708	..	..	..	..	..	..	..	..	708
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	16	4	1	6	6	8	24	18	393	476	
General arteriosclerosis ..	450	..	..	..	1	1	..	8	49	819	878
Other diseases of circulatory system ..	451-468	2	2	1	3	16	18	54	104	325	525	
B46 Other diseases of respiratory system ..	470-475, 510-527	44	13	9	4	9	25	63	144	467	778	
All other diseases ..	Residual	96	57	48	71	63	107	239	331	959	1,971	
BE47 Motor vehicle accidents ..	E810-E835	5	55	93	484	291	223	217	193	263	1,824	
BE48 All other accidents ..	E800-E802, E840-E962	61	105	153	214	239	236	220	199	392	1,819	
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	..	..	2	73	164	165	214	132	160	910
BE50 Homicide and operations of war ..	E964, E965-E980-E999	1	2	6	9	14	21	22	8	11	94	
All Causes ..	..	2,589	557	517	1,088	1,213	1,955	4,578	8,223	26,330	47,050

(a) No deaths were recorded in the following categories in 1958: B5 Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B8, Diphtheria (055); B11, Plague (058); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not mentioned above.

B.—CAUSES OF DEATH: FEMALES, 1958.

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B 1 Tuberculosis of respiratory system ..	001-008	..	1	..	4	12	23	24	23	32	119	
B 2 Tuberculosis, other forms ..	010-019	1	1	1	1	..	1	1	2	6	14	
B 3 Syphilis and its sequelae ..	020-029	2	..	..	..	1	1	2	4	17	27
B 4 Typhoid fever ..	040	..	2	..	..	..	..	..	..	..	2
B 6 Dysentery, all forms ..	045-048	..	1	..	..	..	1	..	..	3	5
B 8 Diphtheria ..	055	..	..	1	..	..	..	..	..	..	1
B 9 Whooping cough ..	056	..	..	1	..	..	..	..	..	..	1
B10 Meningococcal infections ..	057	1	5	3	1	1	..	..	2	..	13
B12 Acute poliomyelitis ..	080	1	..	..	..	..	1	..	..	..	2
B14 Measles ..	085	..	4	..	..	..	..	..	..	..	4
B17 All other diseases classified as infective and parasitic ..	(b)	28	12	11	9	9	15	16	8	35	143	

For footnotes see following page.

B.—CAUSES OF DEATH: FEMALES, 1958—*continued*.ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued*.

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B18 Malignant neoplasms of— Digestive organs and peritoneum .. Lung .. Breast .. Genital organs .. Urinary organs .. Leukaemia and aleukaemia .. Other malignant and lymphatic neoplasms ..	150-159	..	2	..	5	16	87	188	412	1,586	2,296	
	162, 163	..	..	..	1	4	12	38	35	103	193
	170	..	..	..	..	16	103	241	255	484	1,099
	171-179	..	1	3	6	14	81	211	226	421	963	
	180, 181	..	9	2	..	1	1	14	31	112	170	
	204	3	23	24	14	15	12	21	40	95	247	
	(c)	2	12	28	17	39	74	138	164	372	846	
B19 Benign and unspecified neoplasms ..	210-239	4	2	6	6	5	17	32	18	42	132	
B20 Diabetes mellitus ..	260	1	1	..	4	1	8	28	116	552	711	
B21 Anaemias ..	290-293	2	4	4	..	4	..	10	18	129	171	
B22 Vascular lesions affecting central nervous system ..	330-334	7	2	8	6	28	148	370	773	5,055	6,397	
B23 Non-meningococcal meningitis ..	340	20	13	2	2	2	1	1	2	1	44	
B24 Rheumatic fever ..	400-402	1	2	6	2	3	3	..	..	1	18
B25 Chronic rheumatic heart disease ..	410-416	1	..	4	6	17	29	69	84	137	347	
B26 { Arteriosclerotic heart disease .. Degenerative heart disease ..	420	..	..	..	2	5	73	300	1,014	4,950	6,344
B27 Other diseases of heart ..	421, 422	1	5	..	4	9	12	45	161	2,613	2,850	
B28 Hypertension with heart disease ..	430-434	4	2	1	2	7	11	34	110	1,081	1,252	
B29 Hypertension without mention of heart ..	440-443	..	..	..	..	..	13	41	122	938	1,114
B30 Influenza ..	444-447	..	..	1	..	5	40	40	53	385	524
B31 Pneumonia ..	480-483	2	..	1	..	2	..	2	5	22	34	
B32 Bronchitis ..	490-493	153	65	8	9	20	30	36	73	861	1,255	
B33 Ulcer of stomach and duodenum ..	500-502	7	13	..	1	1	7	9	18	168	224	
B34 Appendicitis ..	540, 541	..	..	..	1	10	10	23	32	101	177
B35 Intestinal obstruction and hernia ..	550-553	..	..	8	2	2	3	1	7	30	53
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	560, 561, 570	14	3	3	2	2	14	15	25	171	249	
B37 Cirrhosis of liver ..	543, 571, 572	55	20	3	4	5	12	10	22	106	237	
B38 Nephritis and nephrosis ..	581	3	..	2	2	7	23	35	46	50	168	
B40 Complications of pregnancy, childbirth and the puerperium ..	590-594	3	6	11	15	24	53	66	86	231	495	
B41 Congenital malformations ..	{ 640-652, 670-689 }	..	..	..	21	58	30	2	..	..	111
B42 Birth injuries, post-natal asphyxia and atelectasis ..	750-759	367	33	25	16	9	18	17	10	12	507	
B43 Infections of the new born ..	760-762	479	..	..	..	..	..	..	..	..	479
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	763-768	80	..	..	..	..	..	..	..	..	80
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	769-776	575	..	..	..	..	..	..	..	..	575
B46 { General arteriosclerosis .. Other diseases of circulatory system .. Other diseases of respiratory system ..	780-795	1	1	2	2	7	7	10	9	525	564	
	450	..	..	..	..	..	1	3	20	988	1,012
	451-468	1	1	1	4	9	18	34	57	187	312	
	470-475	31	14	11	4	9	10	15	40	210	344	
	510-527	71	49	39	35	60	160	208	312	1,022	1,956	
BE47 Motor vehicle accidents ..	Residual .. E810-E835	7	49	52	78	48	55	57	74	112	507	
BE48 All other accidents ..	E800-E802 .. E840-E962	43	81	59	22	26	35	37	60	562	925	
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	..	..	1	24	42	56	75	53	46	297
BE50 Homicide and operations of war ..	E964, E965-E980-E999	4	6	9	9	6	12	11	4	2	63	
All Causes ..	..	1,971	425	340	343	561	1,321	2,530	4,626	24,556	36,673

(a) No deaths were recorded in the following categories in 1958:—B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B11, Plague (058); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not shown above.

C.—CAUSES OF DEATH: AUSTRALIA, 1958.

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.	Detailed List Numbers.	Number of Deaths.			Rate per 1,000,000 of Mean Population.	Percentage of Total Deaths.
		Males.	Females.	Persons.		
B 1 Tuberculosis of respiratory system ..	001-008	382	119	501	51	.60
B 2 Tuberculosis, other forms ..	010-019	23	14	37	4	.04
B 3 Syphilis and its sequelae ..	020-029	101	27	128	13	.15
B 4 Typhoid fever ..	040	3	2	5	..	.01
B 5 Cholera ..	043	..	..	..	..	..
B 6 Dysentery, all forms ..	045-048	10	5	15	2	.02
B 7 Scarlet fever and streptococcal sore throat ..	050, 051	..	..	..	..	..
B 8 Diphtheria ..	055	..	1	1	..	.00
B 9 Whooping cough ..	056	2	1	3	..	.00
B10 Meningococcal infections ..	057	22	13	35	4	.04
B11 Plague ..	058	..	..	..	..	..
B12 Acute poliomyelitis ..	080	2	2	4	..	.00
B13 Smallpox ..	084	..	..	..	..	..
B14 Measles ..	085	10	4	14	1	.02
B15 Typhus and other rickettsial diseases ..	100-108	..	..	..	..	..
B16 Malaria ..	110-117	..	..	..	..	..
B17 All other diseases classified as infective and parasitic ..	(a)	184	143	327	33	.39
B18 Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues ..	140-205	6,833	5,814	12,647	1,284	15.11
B19 Benign and unspecified neoplasms ..	210-239	115	132	247	25	.30
B20 Diabetes mellitus ..	260	404	711	1,115	113	1.33
B21 Anaemias ..	290-293	96	171	267	27	.32
B22 Vascular lesions affecting central nervous system ..	330-334	4,963	6,397	11,360	1,153	13.57
B23 Non-meningococcal meningitis ..	340	61	44	105	11	.13
B24 Rheumatic fever ..	400-402	20	18	38	4	.05
B25 Chronic rheumatic heart disease ..	410-416	330	347	677	69	.81
B26 Arteriosclerotic and degenerative heart disease ..	420-422	14,206	9,194	23,400	2,376	27.95
B27 Other diseases of heart ..	430-434	1,441	1,252	2,693	273	3.22
B28 Hypertension with heart disease ..	440-443	820	1,114	1,934	196	2.31
B29 Hypertension without mention of heart ..	444-447	548	524	1,072	109	1.28
B30 Influenza ..	480-483	69	34	103	10	.12
B31 Pneumonia ..	490-493	1,616	1,255	2,871	292	3.43
B32 Bronchitis ..	500-502	807	224	1,031	105	1.23
B33 Ulcer of stomach and duodenum ..	540, 541	498	177	675	69	.81
B34 Appendicitis ..	550-553	74	53	127	13	.15
B35 Intestinal obstruction and hernia ..	560, 561, 570	287	249	536	54	.64
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	246	237	483	49	.58
B37 Cirrhosis of liver ..	581	328	168	496	50	.59
B38 Nephritis and nephrosis ..	590-594	655	495	1,150	117	1.37
B39 Hyperplasia of prostate ..	610	513	..	513	52	.61
B40 Complications of pregnancy, child birth and the puerperium ..	{ 640-652, 670-689 }	..	111	111	11	.13
B41 Congenital malformations ..	750-759	630	507	1,137	115	1.36
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	672	479	1,151	117	1.37
B43 Infections of the newborn ..	763-768	96	80	176	18	.21
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	708	575	1,283	130	1.53
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	476	564	1,040	106	1.24
B46 All other diseases ..	Residual	4,152	3,624	7,776	790	9.29
BE47 Motor vehicle accidents ..	E810-E835	1,824	507	2,331	237	2.78
BE48 All other accidents ..	E800-E802 E840-E962	1,819	925	2,744	279	3.28
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	910	297	1,207	123	1.44
BE50 Homicide and operations of war ..	E964, E965 E980-E999	94	63	157	16	.19
All Causes ..	..	47,050	36,673	83,723	8,501	100.00

a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

11. **Deaths from Principal Causes.**—(i) *General.* In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pp. 363–6) are indicated in parentheses for each cause or group of causes.

(ii) *All Forms of Tuberculosis (B1, B2).* (a) *General.* The total number of deaths classified to all forms of tuberculosis in 1958 was 538, consisting of 405 males and 133 females. In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Official Year Book No. 39, page 626.

(b) *Age at Death.* The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1958, together with figures for 1921, 1931, 1941 and 1951.

TUBERCULOSIS (ALL FORMS): DEATHS IN AGE GROUPS, AUSTRALIA.

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951.	1958.	1921.	1931.	1941.	1951.	1958.
0–14	143	90	63	23	5	128	81	54	35	4
15–29	477	294	162	46	9	540	487	275	68	8
30–44	718	585	428	135	32	514	422	319	142	33
45–64	692	674	793	570	195	278	252	251	126	50
65 and over ..	138	193	279	306	164	56	89	110	86	38
Not stated ..	3	..	..	..	..	..	..	..	1	..
Total ..	2,171	1,836	1,725	1,080	405	1,516	1,331	1,009	458	133

(c) *Death Rates.* The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 68 per 100,000 of mean population in 1921 (males, 78; females, 56) to 18 in 1951 (males, 25; females, 11) and still further to 5 in 1958 (males, 8; females, 3). The crude death rate does not reveal the even more striking fall in the number of deaths in the younger age groups, which can be seen from the table above.

(d) *Death Rates, Various Countries.* A comparison of the death rates from tuberculosis for Australia with those for various other countries, made on the latest figures available, shows that Australia, with a rate of 5 deaths per 100,000 of mean population, occupies a favourable position as regards this disease. Whereas the rate for Denmark and Netherlands is only 5, rates range as high as 58 for Portugal. For various other countries rates are as follows:—Canada, 7; New Zealand, 11; Union of South Africa and United States of America, 8; United Kingdom, 11; Switzerland, 18; Italy, 21; France, 27; Finland, 38; and Japan, 47.

(iii) *Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18).* (a) *General.* It was shown in Official Year Book No. 39, page 628, that deaths classified under this heading according to the Sixth Revision of the International List are not directly comparable in total with those on the Fifth Revision basis and comparability ratios were given to enable comparison to be made on an adjusted basis. This change must be kept in mind in considering the comparisons shown in the following pages.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1958 will be found in *Demography*, Bulletin No. 76. A summary regarding type and seat of disease for 1958 is given below. It may be pointed out that the significance of the number of deaths shown for the various types of neoplasms enumerated hereunder is doubtful, owing to the fact that, in the absence of a post-mortem, it is impracticable in the majority of cases for the certifying doctor to make an accurate diagnosis as to type in the detail required for the following classification.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES: TYPE AND SEAT OF DISEASE, AUSTRALIA, 1958.

Type of Disease.	Males.	Fe- males.	Per- sons.	Seat of Disease.	Males.	Fe- males.	Per- sons.
Malignant Neoplasms—				Malignant Neoplasms—			
Cancer and carcinoma (other than skin) ..	5,695	4,946	10,641	Buccal cavity and pharynx ..	175	73	248
Skin cancer ..	35	30	65	Digestive organs and peritoneum—			
Sarcoma and myeloid sarcoma ..	101	92	193	Oesophagus ..	179	91	270
Myeloma ..	110	99	209	Stomach ..	1,116	635	1,751
Glioma ..	1	..	1	Small intestine ..	30	17	47
Endothelioma ..	120	88	208	Large intestine ..	630	868	1,498
Melanoma and melanotic sarcoma ..	35	18	53	Other ..	880	685	1,565
Hypernephroma ..	13	3	16	Respiratory system ..	1,369	215	1,584
Teratoma ..	145	94	239	Breast ..	18	1,099	1,117
Malignant disease and malignant tumor, n.o.s.				Uterus ..	..	581	581
				Other female genital organs ..	..	382	382
<i>Total, Malignant Neoplasms</i> ..	6,255	5,370	11,625	Male genital organs ..	794	794	794
				Urinary organs ..	377	170	547
Neoplasms of Lymphatic and Haematopoietic Tissues—				Skin ..	189	117	306
Lymphosarcoma and reticulosarcoma ..	120	106	226	Other and unspecified organs ..	498	437	935
Hodgkin's disease ..	84	43	127	<i>Total, Malignant Neoplasms</i> ..	6,255	5,370	11,625
Other forms of lymphoma (reticulosis) ..	27	15	42				
Multiple myeloma (plasmacytoma) ..	45	32	77	<i>Neoplasms of Lymphatic and Haematopoietic Tissues</i> ..	578	444	1,022
Leukaemia and leukaemia ..	301	247	548				
Mycosis fungoides ..	1	1	2				
<i>Total, Neoplasms of Lymphatic, etc., Tissues</i> ..	578	444	1,022				
Grand Total ..	6,833	5,814	12,647	Grand Total ..	6,833	5,814	12,647

(c) *Age at Death.* The ages of males and females who died from malignant neoplasms in 1958 are given below, together with figures for 1921, 1931, 1941 and 1951. The increase in the number of deaths from malignant neoplasms in the years since 1921 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 80 per cent. between 1921 and 1958 the number of people over 55 years of age increased by about 161 per cent. The increase in the number of deaths in the lower age groups from 1951 is partly due to the inclusion of neoplasms of lymphatic and haematopoietic tissues, also it is probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

MALIGNANT NEOPLASMS(a): NUMBER OF DEATHS IN AGE GROUPS, AUSTRALIA.

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951. (a)	1958. (a)	1921.	1931.	1941.	1951. (a)	1958. (a)
Under 15 ..	26	25	21	91	129	23	23	25	71	109
15-29 ..	29	43	49	103	112	37	38	45	76	71
30-44 ..	163	196	176	275	336	266	326	344	387	446
45-54 ..	387	410	465	584	769	470	548	685	692	851
55-64 ..	800	868	983	1,334	1,564	657	744	926	1,180	1,163
65 and over ..	1,032	1,942	2,561	3,128	3,922	875	1,426	2,198	2,698	3,174
Not stated ..	3	..	..	..	1	..	..	..	..	..
Total ..	2,440	3,484	4,255	5,515	6,833	2,328	3,105	4,223	5,104	5,814

(a) Includes neoplasms of lymphatic and haematopoietic tissues.

(d) *Death Rates.* The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (see previous paragraph). In 1921, the rate for Australia was 87 (males, 88; females, 87); in 1931 it was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119; females, 120) and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1958 gave a rate of 128 (males, 137; females, 119).

(e) *Death Rates, Various Countries.* Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:—Portugal, 86; Japan, 91; Australia, 128; Canada, 129; Union of South Africa, 131; Italy, 136; New Zealand and United States of America, 150; Finland, 153; Netherlands, 159; France, 190; Switzerland, 191, and United Kingdom, 209. The rates are for the latest available year in each case.

(iv) *Diseases of the Heart (B25 to B28).* The number of deaths classified to diseases of the heart in 1958 was 28,704 (16,797 males and 11,907 females). This class is the largest amongst causes of death, the rate having increased from 112 per 100,000 of mean population in 1911–15 to 291 in 1958. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates for heart diseases for various years from 1921 were as follows:—1921, 93 (males, 102; females, 83); 1931, 159 (males, 178; females, 142); 1941, 269 (males 306; females, 231); 1951, 314 (males, 367; females, 259); and 1958, 292 (males, 337; females, 245). Deaths from heart diseases in 1958 represented 34 per cent. of the total deaths.

(v) *Puerperal Causes (B40).* It was shown in Official Year Book No. 39, page 634 that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes (including criminal abortion) has fallen rapidly during recent years and in 1958 the rate was 0.5 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 111 deaths in 1958 correspond to a death rate of 2.3 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 1,981 women giving birth to a live child in 1958 died from puerperal causes; the corresponding ratios for married women were 1 in every 2,038 and for single women 1 in every 1,253.

The death rate per 1,000 live births from puerperal causes in various countries for the latest available years is as follows:—New Zealand, Denmark and the United States of America, 0.4; United Kingdom, Canada and Australia, 0.5; France and the Netherlands, 0.6; Switzerland, 0.8; Finland, 0.9; Italy, 1.1; and Japan, 1.7.

The total number of children left by the 103 married mothers who died from puerperal causes in 1958 was 327, an average of 3.2 children per mother.

Five of the mothers who died had been married less than one year, 5 between one and two years, and 4 between two and three years. The duration of marriage ranged up to 24 years. Tabulations distinguishing the ages at marriage and at death will be found in *Demography*, Bulletin No. 76, which also includes a table showing in combination the duration of marriage and previous issue.

(vi) *Congenital Malformations and Diseases of Early Infancy (B41 to B44).* This combined group embraces two complete classes of the International List of Causes of Death which relate more specifically to infant deaths and they have already been presented in detail in the section devoted to causes of infant death (see pp. 359 and 360).

(vii) *Accidents, Poisonings and Violence (BE 47 to BE 50).* (a) *General.* Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including late effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is generally about three times as great for males as for females. It can be seen also that in 1958 the proportion of deaths caused by violence was 7.69 per cent., compared with 6.76 per cent. in 1931–35.

The low level of the rates and proportions for the years 1941–45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July, 1947, deaths of defence personnel from accidents, etc., have again been included.

ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES.(a)

Period.	Death Rate(a) from—												All Violence. Proportion per 10,000 Deaths.		
	Accidents.(b)			Suicide.			Homicide.(c)			Total Violence.					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1931-35..	71	22	47	19	5	12	2	1	2	92	28	61	929	353	676
1936-40..	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941-45..	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946-50..	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951-55..	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1954 ..	79	30	55	16	5	11	2	1	1	97	36	67	965	448	737
1955 ..	79	31	56	15	5	10	2	1	1	96	37	67	969	472	752
1956 ..	76	33	55	16	6	11	2	1	1	94	40	67	930	486	735
1957 ..	79	31	55	17	7	12	2	1	1	98	39	68	1,007	496	783
1958 ..	73	30	51	18	6	12	2	1	2	93	37	65	988	489	769

(a) Number of deaths per 100,000 of mean population.

(b) Includes "open verdict."

(c) Includes late effects of injuries due to operations of war.

(b) *Accidents* (BE 47, BE 48). In 1958, the total number of deaths from accidental causes was 5,075 (3,643 males and 1,432 females). Half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows:—Motor vehicle traffic accidents, 2,228 (43.90 per cent.); motor vehicle non-traffic accidents, 103 (2.03 per cent.); other road vehicle accidents, 81 (1.60 per cent.); railway accidents, 111 (2.19 per cent.); water transport accidents, 69 (1.36 per cent.); aircraft accidents, 29 (0.57 per cent.); a total of 2,621 (51.65 per cent.). Other important causes were accidental falls, 954 (18.80 per cent.); accidental drowning, 420 (8.28 per cent.); and accidents caused by fire and explosion of combustible material, 177 (3.49 per cent.).

(c) *Suicide* (BE 49). (i) *Modes Adopted*. Deaths from suicide in 1958 numbered 1,207 (males, 910; females, 297). Firearms and explosives were used in 337 cases (27.92 per cent. of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows:—Poisoning other than by gases, 274 (22.70 per cent.); poisoning by gases, 208 (17.23 per cent.); hanging or strangulation, 207 (17.15 per cent.); submersion (drowning), 65 (5.39 per cent.); other modes, 116 (9.61 per cent.).

Of the 910 males who committed suicide, 319 (35.05 per cent.) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 115 cases (38.72 per cent.).

(ii) *Age at Death*. From the following table, which shows the age of persons who committed suicide in 1958, it will be seen that both young and very old people took their lives during this year.

AGE OF PERSONS WHO COMMITTED SUICIDE: AUSTRALIA, 1958.

Age Group (Years).	Males.	Females.	Persons.	Age Group (Years).	Males.	Females.	Persons.
10–14 ..	2	1	3	60–64 ..	65	26	91
15–19 ..	18	10	28	65–69 ..	66	24	90
20–24 ..	55	14	69	70–74 ..	47	16	63
25–29 ..	71	15	86	75–79 ..	18	4	22
30–34 ..	93	27	120	80–84 ..	20	..	20
35–39 ..	88	27	115	85–89 ..	6	1	7
40–44 ..	77	29	106	90–94 ..	..	1	1
45–49 ..	120	37	157	95–99 ..	1	..	1
50–54 ..	94	38	132	Not stated ..	2	..	2
55–59 ..	67	27	94				
				Total Deaths ..	910	297	1,207

(d) *Homicide and Operations of War (BE 50).* Of the 157 deaths recorded in 1958, there were 150 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 54; assault by cutting and piercing instruments 34, assault by other means 61 and execution 1. Deaths from injury resulting from the operations of war numbered 7 but all were deaths from late effects of such injuries.

12. *Age at Death and Average Issue of Deceased Married Males and Females.*—*Demography*, Bulletin No. 76, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1958. Deaths of married males in 1958 numbered 35,430, and of married females, 28,945. The tables which follow deal, however, with only 34,811 males and 28,684 females, the information regarding issue in the remaining 880 cases being incomplete. The total number of children in the families of the 34,811 males was 107,408 and of the 28,684 females, 95,565. The average number of children is shown for various age groups in the following table.

AGE AT DEATH AND AVERAGE ISSUE OF DECEASED MARRIED (a) MALES AND FEMALES: AUSTRALIA.

Age at Death (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1958.	1921.	1931.	1941.	1951.	1958.
Under 20 ..	..	0.75	..	0.43	0.33	0.77	0.66	0.79	0.83	0.67
20-24 ..	0.84	0.81	0.73	0.96	0.92	1.22	1.13	0.95	0.86	1.00
25-29 ..	1.29	1.33	1.12	1.29	1.68	1.86	1.81	1.45	1.61	1.81
30-34 ..	2.06	1.79	1.76	1.79	2.19	2.45	2.34	1.91	1.98	2.29
35-39 ..	2.58	2.13	2.11	2.12	2.41	3.29	2.89	2.30	2.49	2.24
40-44 ..	3.23	2.77	2.49	2.30	2.48	3.66	3.29	2.77	2.39	2.52
45-49 ..	3.48	3.10	2.68	2.51	2.50	3.76	3.55	2.93	2.59	2.51
50-54 ..	3.76	3.46	2.96	2.56	2.56	4.23	3.60	3.29	2.76	2.42
55-59 ..	4.41	3.69	3.28	2.71	2.53	4.69	4.01	3.55	3.03	2.62
60-64 ..	4.98	4.02	3.55	3.07	2.67	5.39	4.21	3.79	3.29	2.86
65-69 ..	5.50	4.41	3.73	3.25	2.89	5.86	4.82	4.01	3.63	3.15
70-74 ..	6.06	5.06	4.17	3.58	3.24	6.30	5.41	4.29	3.64	3.32
75-79 ..	6.66	5.65	4.56	3.83	3.40	6.56	6.02	4.85	3.96	3.62
80-84 ..	6.89	6.17	4.93	4.30	3.75	6.76	6.26	5.39	4.19	3.82
85-89 ..	7.18	6.59	5.70	4.63	4.06	6.93	6.57	5.85	4.68	3.92
90-94 ..	7.21	6.94	6.57	5.06	4.55	6.53	6.73	6.11	5.08	4.33
95-99 ..	6.97	6.69	7.04	5.78	4.39	6.05	7.10	6.34	5.76	4.83
100 and over ..	9.20	7.00	8.69	5.71	9.25	5.11	8.20	6.73	7.72	3.53
Age not stated ..	5.36	5.00	..	8.00	2.00	5.80	5.00	..	5.50	1.33
All Ages ..	4.97	4.44	3.91	3.39	3.09	5.05	4.72	4.22	3.68	3.33

(a) Includes widowed or divorced.

The figures in the preceding table include the issue both living and dead. The proportion of living to deceased issue, taking males and females together, is almost seven to one. The totals for 1958 are shown in the following table:—

ISSUE OF DECEASED MARRIED(a) MALES AND FEMALES: AUSTRALIA, 1958.

Issue of Married Males.				Issue of Married Females.			
Issue.	Males.	Females.	Total.	Issue.	Males.	Females.	Total.
Living ..	48,668	47,440	96,108	Living ..	40,579	40,652	81,231
Dead ..	6,780	4,520	11,300	Dead ..	8,678	5,656	14,334
Total ..	55,448	51,960	107,408	Total ..	49,257	46,308	95,565

(a) Includes widowed or divorced.

13. **Age at Marriage of Deceased Males and Females, and Issue.**—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing age at death, the following table, which gives the average issue of males and females according to the age at marriage of the deceased parent shows a corresponding decrease in the averages as the age at marriage advances.

**AGE AT MARRIAGE AND AVERAGE ISSUE OF DECEASED MALES
AND FEMALES: AUSTRALIA.**

Age at Marriage (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1958.	1921.	1931.	1941.	1951.	1958.
Under 15 ..	..	..	..	..	..	7.60	6.36	7.80	4.88	4.79
15-19..	6.32	6.15	5.40	4.63	4.36	6.97	6.79	6.10	5.41	4.92
20-24..	6.05	5.56	4.89	4.23	3.78	5.50	5.23	4.80	4.28	3.86
25-29..	5.17	4.70	4.21	3.65	3.27	4.09	3.79	3.51	3.14	2.92
30-34..	4.45	3.96	3.41	3.00	2.71	2.66	2.42	2.35	2.23	2.03
35-39..	3.90	3.14	2.80	2.45	2.24	1.61	1.40	1.26	1.16	1.09
40-44..	2.67	2.36	2.01	1.69	1.62	0.62	0.39	0.35	0.36	0.37
45-49..	2.20	1.96	1.52	1.33	1.11	0.03	0.12	0.01	0.07	0.09
50-54..	1.70	1.60	1.05	0.80	0.62	..	..	..	..	..
55-59..	1.30	0.95	0.79	0.49	0.64	..	..	..	..	..
60-64..	0.33	0.63	0.29	0.24	0.22	..	..	..	..	..
65 and over ..	0.25	0.18	0.01	0.29	0.14	..	..	..	..	..
Age not stated ..	4.93	3.64	2.95	2.81	2.62	5.41	3.96	2.45	3.17	2.76
All Ages ..	4.97	4.44	3.91	3.39	3.09	5.05	4.72	4.22	3.68	3.33

§ 6. Vital Statistics of External Territories.

Because of the outbreak of hostilities in the Pacific during the 1939-45 War, civil administration in the external territories was suspended on 11th February, 1942, and registration of births, deaths and marriages was not resumed until 1946. The following table for the year 1958, shows the number of marriages, births and deaths registered in the external territories under the control of Australia, namely:—Norfolk Island; Papua; the Trust Territory of New Guinea; and the Trust Territory of Nauru. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 76.

VITAL STATISTICS: EXTERNAL TERRITORIES, 1958.

(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Marri- ages.	Births.			Deaths.		
		Males.	Females.	Persons.	Males.	Females.	Persons.
Norfolk Island ..	6	13	5	18	6	3	9
Papua ..	83	139	101	240	22	6	28
Trust Territory of New Guinea	103	224	215	439	45	13	58
Trust Territory of Nauru ..	2	10	10	20	3	2	5

NOTE.—Information for Cocos (Keeling) and Christmas Islands is not available.

CHAPTER XI.

HOUSING AND OTHER NEW BUILDING.

§ 1. Introduction.

1. **General.**—In issues of the Official Year Book prior to No. 43, certain information relating to the housing of the population was included in various chapters, but for a more convenient presentation of the material this complete chapter, which presents a summary of all available information on the subject, has been substituted.

In section 2 of this chapter details are given of the characteristics of dwellings as obtained from censuses. Section 3 outlines government assistance to housing since 1945 and operations under the War Service Homes Act 1918–1956. A statistical summary of new building is provided in section 4.

§ 2. Census Dwellings.

1. **General.**—At each census, in addition to the questions relating to the personal particulars of the individual members of households, there have been a number of important questions on the Census Schedule designed to elicit information concerning the dwellings in which the population was housed at the date of the census. For the purpose of the census, a “dwelling” is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has therefore a very wide reference, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution.

2. **Number of Dwellings.**—(i) *Censuses 1911 to 1954.* The following table shows the number of occupied and unoccupied dwellings in Australia at each Census from 1911 to 1954. Occupied dwellings are classified into private and other dwellings. Dwellings other than private include hotels, boarding houses, lodging houses, hostels, hospitals, educational, religious and charitable institutions, defence and penal establishments, etc. The term “unoccupied dwellings” is not synonymous with vacant houses and flats available for occupancy, but refers mainly to “week-end”, holiday and other dwellings whose usual occupants were temporarily absent on the night of the Census; newly-completed dwellings awaiting occupancy are also included.

DWELLINGS: AUSTRALIA, CENSUSES 1911 TO 1954.

(Excluding Dwellings occupied solely by Full-blood Aborigines.)

Census.	Occupied.			Unoccupied.
	Private.	Other than Private.	Total.	
1911	894,389	29,070	923,459	33,473
1921	1,107,010	46,275	1,153,285	51,163
1933	1,509,671	37,705	1,547,376	68,772
1947	1,873,623	34,272	1,907,895	47,041
1954	2,343,421	36,932	2,380,353	112,594

(ii) *Census, 1954.* The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30th June, 1954. (For definitions of "urban" and "rural" see para. 4, p. 287.) As explained therein, the boundaries of the Metropolitan Urban and other divisions of State differ from census to census, and consequently accurate comparison cannot be made between figures for corresponding divisions. Moreover, the inclusion in the Other Urban Division in 1954 of the larger towns not separately incorporated has further reduced comparability. These factors should be borne in mind when referring to tables in this section showing divisions of State.

Occupied dwellings are classified into private and other dwellings (see para. 3, p. 375, for definitions of "private" and "other" dwellings). The term "unoccupied dwellings" is not synonymous with vacant houses and flats available for occupancy, but refers mainly to "week-end", holiday and other dwellings whose usual occupants were temporarily absent on the night of the Census; newly-completed dwellings awaiting occupancy are also included.

The total number of occupied dwellings in Australia at the Census of 30th June, 1954, showed an increase of 24.8 per cent. over the corresponding figure for the 1947 Census, compared with an increase of 18.6 per cent. in population. Occupied private dwellings increased by 25.1 per cent. and occupied dwellings other than private by 7.8 per cent. At the 1954 Census, 98.4 per cent. of the total occupied dwellings in Australia were private dwellings, compared with 98.2 per cent. in 1947. Proportional increases in total occupied dwellings over 1947 figures in each State and Territory were:—New South Wales 22.3 per cent., Victoria 25.3 per cent., Queensland 24.7 per cent., South Australia 27.7 per cent., Western Australia 30.5 per cent., Tasmania 26.1 per cent., Australian Capital Territory 96.9 per cent., and Northern Territory 27.1 per cent.

Unoccupied dwellings increased by 139 per cent.

DWELLINGS: AUSTRALIA, CENSUS, 30th JUNE, 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Division.	Occupied.				Unoccupied.	
	Private.	Other than Private.	Total.		Number.	Proportion of Total. (Per Cent.)
			Number.	Proportion of Total. (Per Cent.)		
Urban—						
Metropolitan ..	1,309,188	19,203	1,328,391	55.81	32,984	29.30
Other ..	568,679	9,075	577,754	24.27	33,477	29.73
Rural ..	465,554	8,654	474,208	19.92	46,133	40.97
Total ..	2,343,421	36,932	2,380,353	100.00	112,594	100.00

The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1947 and 1954 were as follows:—

DWELLINGS: STATES AND TERRITORIES, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINES.)

State or Territory.	Census, 30th June, 1947.		Census, 30th June, 1954.	
	Occupied.	Unoccupied.	Occupied.	Unoccupied.
New South Wales	746,343	17,392	912,877	42,831
Victoria	527,406	11,412	660,690	27,491
Queensland	272,045	9,647	339,328	21,473
South Australia	168,538	3,547	215,301	8,524
Western Australia	124,767	2,606	162,823	6,614
Tasmania	62,484	2,351	78,789	5,288
Northern Territory	2,697	34	3,427	47
Australian Capital Territory	3,615	52	7,118	326
Australia	1,907,895	47,041	2,380,353	112,594

The numbers of occupied dwellings in the External Territories at the 1954 Census were as follows:—Norfolk Island, 310; Papua, 1,605; Trust Territory of New Guinea, 3,098; Trust Territory of Nauru, 99.

3. Class of Dwelling.—The following table shows the number of the various classes of occupied dwellings in the Metropolitan Urban, Other Urban and Rural Areas of Australia at the Censuses of 1947 and 1954. Definitions of the several classes of dwellings are as follows:—

Private dwellings comprise private houses (including sheds, huts, garages, &c., used for dwelling purposes), shares of private houses, flats and rooms, apartments, etc. In previous censuses, dwellings returned on the Schedules as sheds, huts, garages, etc. were included with private houses. For the Census of 1954, particulars of these dwellings were tabulated separately, but have been included with private houses to preserve continuity with past census results. Separate particulars were shown in the 1947 Census publications for private houses which were shared by two or more family units and for which only one Householder's Schedule was received, but in 1954 these dwellings were included with private houses.

Share of private house is a portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was furnished.

Flat is part of a house or other building which can be completely closed off and which includes both cooking and bathing facilities.

Other private dwelling is an apartment, room(s), etc., which is part of a building, but which is not a self-contained unit.

Dwellings other than private include hotels, boarding houses, lodging houses, hostels, hospitals, educational, religious and charitable institutions, defence and penal establishments, etc.

It is desirable, when considering the question of housing, to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only.

OCCUPIED DWELLINGS ACCORDING TO CLASS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Class of Occupied Dwelling.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54.
	Urban.(a)		Rural. (a)	Total, Aus- tralia.	Urban.(a)		Rural. (a)	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Private House(b)— House .. Shed, Hut, etc. }	760,678	289,898	567,476	1,618,052	{ 1,067,674 14,259	506,128 12,276	433,069 22,613	2,006,871 49,148	} 437,967
Total	760,678	289,898	567,476	1,618,052	1,081,933	518,404	455,682	2,056,019	437,967
Share of Private House(c)	72,724	19,627	13,660	106,011	77,344	22,747	7,125	107,216	1,205
Flat	94,822	12,697	3,880	111,399	104,603	20,784	2,033	127,420	16,021
Other	33,263	3,855	1,043	38,161	45,308	6,744	714	52,766	14,605
Total Private Dwellings	961,487	326,077	586,059	1,873,623	1,309,188	568,679	465,554	2,343,421	469,798
Caretaker's Quarters ..	1,110	279	352	1,741	998	264	194	1,456	-285
Licensed Hotel	1,686	1,776	2,854	6,316	1,720	2,457	2,015	6,192	-124
Boarding House, etc. ..	15,302	3,367	2,512	21,181	14,110	4,120	1,041	19,271	-1,910
Educational Institution	449	290	389	1,128	523	488	251	1,262	134
Religious Institution (non-educational) ..	85	21	42	148	142	31	24	197	49
Hospital	543	368	593	1,504	559	517	353	1,429	-75
Charitable Institution (other than Hospital)	206	72	128	406	299	107	104	510	104
Other	552	293	1,003	1,848	852	1,091	4,672	6,615	4,767
Total Dwellings Other than Private	19,933	6,466	7,873	34,272	19,203	9,075	8,654	36,932	2,660
Total Occupied Dwell- ings	981,420	332,543	593,932	1,907,895	1,328,391	577,754	474,208	2,380,353	472,458
Total Occupied Dwell- ings per square mile	711.92	121.89	0.20	0.64	592.88	123.44	0.16	0.80	0.16
Wagon, Van, etc. (in- cluding campers-out)	847	1,029	3,997	5,873	2,693	3,605	5,383	11,681	5,808

(a) See letterpress on p. 287 regarding comparability as between Censuses. (b) Includes shared private houses for which only one Householder's Schedule was received. (c) Portion of a shared private house which was occupied separately and for which portion a separate Householder's Schedule was received.

NOTE.—Minus sign. (—) denotes decrease.

4. Population According to Class of Dwelling, etc.—The following table shows the number of the various classes of occupied dwellings at the Censuses of 1947 and 1954, together with the number of inmates therein.

Of the total population in 1954, 92.52 per cent. were living in private dwellings—houses, flats, apartments, rooms, etc.—whilst 672,168 persons, or 7.48 per cent. of the population, spent the night in other than private dwellings, or on ships, trains or aircraft or were camping out.

OCCUPIED DWELLINGS, ETC. AND INMATES, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS AND DWELLINGS OCCUPIED SOLELY BY THEM.)

Particulars.	Census, 30th June, 1947.			Census, 30th June, 1954.		
	Number of Dwellings.	Inmates.		Number of Dwellings.	Inmates.	
		Number.	Proportion of Total. (Per Cent.)		Number.	Proportion of Total. (Per Cent.)
Private House(a)—						
House	1,618,052	6,323,621	83.43	{ 2,006,871 49,148	7,448,978 134,187	82.89 1.49
Shed, Hut, etc.						
Total	1,618,052	6,323,621	83.43	2,056,019	7,583,165	84.38
Share of Private House(b) ..	106,011	303,996	4.01	107,216	290,579	3.23
Flat	111,399	316,115	4.17	127,420	329,265	3.67
Other	38,161	83,028	1.10	52,766	111,353	1.24
Total Private Dwellings ..	1,873,623	7,026,760	92.71	2,343,421	8,314,362	92.52
Dwellings Other than Private	34,272	520,204	6.86	36,932	618,743	6.89
Total Occupied Dwellings ..	1,907,895	7,546,964	99.57	2,380,353	8,933,105	99.41
Wagon, Van, etc.	5,873	13,791	0.18	11,681	30,056	0.33
Migratory(c) .. .. .	..	18,603	0.25	..	23,369	0.26
Total .. .. .	..	7,579,358	100.00	..	8,986,530	100.00

(a) Includes shared private houses for which only one Householder's Schedule was received.

(b) Portion of a shared private house which was occupied separately and for which portion a separate Householder's Schedule was received.

(c) Shipping, railway and air travellers.

5. Occupied Private Dwellings.—(i) *Material of Outer Walls.* In the following table, occupied private dwellings are classified according to the material of which the outer walls were built.

Wood has been the most extensively used material in the construction of the outer walls, followed by brick and fibro cement, and in 1954 the respective proportions for Australia for occupied private dwellings for which the material of the outer walls was specified were—wood, 44.4 per cent., brick, 33.5 per cent. and fibro cement, 12.7 per cent. The latter has shown a most spectacular increase since 1933, when the proportion was 1.6 per cent. (23,696 dwellings), compared with 6.3 per cent. in 1947 (117,631 dwellings). The proportions of both brick and wooden dwellings have shown small decreases since 1947. The numbers of dwellings of all other materials except fibro cement and concrete have decreased. Brick dwellings in 1954 represented 51.5 per cent. of all occupied private dwellings in the Metropolitan Urban Divisions, whilst in the Other Urban and Rural Divisions wooden dwellings predominated, the percentages of such dwellings being 60.0 per cent. and 59.4 per cent. respectively.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO MATERIAL OF OUTER WALLS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Material of Outer Walls.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54.
	Urban.(a)		Rural. (a)	Total, Aus- tralia.	Urban.(a)		Rural. (a)	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Brick ..	551,618	60,215	38,179	650,012	674,165	86,254	25,089	785,508	135,496
Stone ..	36,714	13,409	37,573	87,696	35,907	18,049	33,604	87,560	- 136
Concrete ..	10,442	5,411	13,283	29,136	24,299	13,497	13,639	51,435	22,299
Wood ..	315,567	204,863	364,221	884,651	422,010	341,145	276,584	1,039,739	155,088
Iron, Tin ..	6,087	14,498	45,347	65,932	7,387	19,652	31,177	58,216	- 7,716
Fibro Cement ..	31,924	23,586	62,121	117,631	140,542	84,835	71,176	296,553	178,922
Calico, Canvas, Hessian ..	656	1,539	13,255	15,450	426	1,843	5,446	7,715	- 7,735
Other ..	4,430	1,774	9,902	16,106	3,644	2,686	7,750	14,080	- 2,026
Not Stated ..	4,049	782	2,178	7,009	808	718	1,089	2,615	- 4,394
Total ..	961,487	326,077	586,059	1,873,623	1,309,188	568,679	465,554	2,343,421	469,798

(a) See letterpress on p. 287 regarding comparability as between Censuses.

NOTE.—Minus sign (—) denotes decrease.

(ii) *Number of Rooms.* For Census purposes, the kitchen and any permanently enclosed sleep-out were included in the number of rooms in the dwelling, but the bathroom, pantry, laundry and storehouse were excluded unless generally used for sleeping.

Excluding houses with rooms unspecified, private houses of four, five and six rooms represented 78.3 per cent. of the total number of private houses in Australia at 30th June, 1954, compared with 79.2 per cent. in 1947, and three-quarters of the total increase in the number of private houses since 1947 consisted of houses containing these numbers of rooms. Houses of seven and more rooms also showed substantial increases.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Rooms(a) per Dwelling.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwell-ings.	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwell-ings.
METROPOLITAN URBAN.(d)										
1 ..	2,913	9,547	1,055	11,263	24,778	5,383	9,353	678	15,186	30,600
2 ..	5,493	17,360	5,850	13,035	41,738	17,177	17,018	5,723	16,126	56,044
3 ..	27,929	18,433	20,505	5,495	72,362	39,250	18,164	21,614	7,841	86,869
4 ..	153,385	13,917	37,406	1,923	206,631	192,237	13,477	40,911	3,176	249,801
5 ..	271,401	7,776	20,338	508	300,023	377,643	9,176	23,221	1,175	411,215
6 ..	203,942	3,539	6,967	210	214,658	302,004	5,734	9,073	594	317,405
7 ..	61,279	1,106	1,572	35	63,992	96,252	2,095	2,098	193	100,638
8 ..	20,078	317	470	9	20,874	31,608	869	685	92	33,254
9 ..	6,888	103	147	1	7,139	10,562	264	213	41	11,080
10 and over ..	5,826	49	86	..	5,961	8,841	111	83	14	9,049
Not Stated ..	1,544	577	426	784	3,331	976	1,083	304	870	3,233
Total Private Dwellings ..	760,678	72,724	94,822	33,263	961,487	1,081,933	77,344	104,603	45,308	1,309,188
Average number of Rooms per Private Dwelling ..	5.28	3.15	4.07	2.02	4.89	5.32	3.37	4.16	2.15	5.00

For footnotes see next page.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS, AUSTRALIA, 1947 AND 1954—continued.

Number of Rooms(a) per Dwelling,	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwellings.	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwellings.
OTHER URBAN.(d)										
1	3,788	2,418	85	956	7,247	5,693	2,232	81	1,068	9,074
2	5,014	4,788	901	1,396	12,099	11,669	5,446	1,453	2,374	20,942
3	10,860	4,903	3,285	904	19,952	20,429	5,854	5,121	1,907	33,311
4	61,611	3,902	4,671	390	70,574	98,504	4,254	7,910	899	111,567
5	107,482	2,208	2,610	83	112,383	186,088	2,565	4,098	293	193,044
6	69,714	873	803	37	71,427	132,573	1,399	1,522	84	135,578
7	20,211	249	182	4	20,646	41,366	485	392	24	42,267
8	6,470	77	60	..	6,607	13,373	163	112	6	13,654
9	2,158	29	20	..	2,207	4,336	56	28	6	4,426
10 and over ..	1,543	13	12	..	1,568	3,208	32	12	3	3,255
Not Stated ..	1,047	167	68	85	1,367	1,165	261	55	80	1,561
Total Private Dwellings ..	289,898	19,627	12,697	3,855	326,077	518,404	22,747	20,784	6,744	568,679
Average number of Rooms per Private Dwelling ..	5.12	3.15	3.99	2.30	4.92	5.18	3.31	4.03	2.61	5.04
RURAL.(d)										
1	23,808	1,340	33	160	25,341	12,976	544	10	82	13,612
2	21,942	3,279	325	314	25,860	16,271	1,297	157	175	17,900
3	37,929	3,608	1,048	324	42,909	27,458	1,698	535	207	29,898
4	134,898	2,959	1,353	182	139,392	89,397	1,553	727	175	91,852
5	163,621	1,509	741	40	165,911	128,313	987	382	52	129,734
6	110,130	570	246	5	110,951	99,843	530	157	9	100,539
7	41,390	184	63	1	41,638	43,694	208	35	1	43,938
8	16,619	63	37	..	16,719	19,111	98	9	2	19,220
9	6,089	20	6	..	6,115	7,532	21	3	..	7,556
10 and over ..	7,095	26	2	..	7,123	8,759	20	3	1	8,783
Not Stated ..	3,955	102	26	17	4,100	2,328	169	15	10	2,522
Total Private Dwellings ..	567,476	13,660	3,880	1,043	586,059	455,682	7,125	2,033	714	465,554
Average number of Rooms per Private Dwelling ..	4.90	3.23	3.95	2.66	4.85	5.19	3.62	4.00	2.98	5.16
TOTAL, AUSTRALIA.										
1	30,509	13,305	1,173	12,379	57,366	24,052	12,129	769	16,336	53,286
2	32,449	25,427	7,076	14,745	79,697	45,117	23,761	7,333	18,675	94,886
3	76,718	26,944	24,838	6,723	135,223	87,137	25,716	27,270	9,955	150,078
4	349,894	20,778	43,430	2,495	416,597	380,138	19,284	49,548	4,250	453,220
5	542,504	11,493	23,689	631	578,317	692,044	12,728	27,701	1,520	733,993
6	383,786	4,982	8,016	252	397,036	534,420	7,663	10,752	687	553,522
7	122,880	1,539	1,817	40	126,276	181,312	2,788	2,525	218	186,843
8	43,167	457	567	9	44,200	64,092	1,130	806	100	66,128
9	15,135	152	173	1	15,461	22,430	341	244	47	23,062
10 and over ..	14,464	88	100	..	14,652	20,808	163	98	18	21,087
Not Stated ..	6,546	846	520	886	8,798	4,469	1,513	374	960	7,316
Total Private Dwellings ..	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421
Average number of Rooms per Private Dwelling ..	5.12	3.16	4.06	2.07	4.88	5.26	3.38	4.14	2.22	5.04

(a) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse, unless generally used for sleeping. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received. (d) See letterpress on p. 287 regarding comparability as between Censuses.

(iii) *Number of Inmates.* A classification of occupied private dwellings according to the number of inmates is shown in the following table.

For Australia as a whole, private houses with four inmates were most numerous, followed very closely by those with two and three inmates in that order.

An increase of nearly 51 per cent. (149,348 houses) in the number of private houses occupied by two inmates brought this group from third position in 1947 to second position in 1954. Houses with two inmates in 1954 constituted 22 per cent. of the total number of occupied private houses in Australia, about the same proportion as for houses with four inmates. In 1947, houses with two inmates constituted 18 per cent. of the total and houses with four inmates 21 per cent. Houses with three inmates constituted 21 per cent. at both the 1947 and 1954 Censuses. The average number of inmates in private houses was 3.69 in 1954, compared with 3.91 in 1947.

The number of private houses which were shared, and for each share of which a separate Householder's Schedule was furnished, increased slightly between 1947 and 1954, but the average number of inmates therein decreased from 2.87 to 2.71. Separate particulars of shared houses for which only one Householder's Schedule was furnished were not compiled in 1954. These particulars are included with private houses in all tables in this section.

Flats and other classes of private dwellings increased in both numbers and total inmates, but the average number of inmates fell from 2.84 to 2.58 for flats and from 2.18 to 2.11 for others.

In flats those with two inmates and in other classes of occupied private dwellings those with one inmate predominated.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF INMATES, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Inmates per Dwelling..	Census, 30th June, 1947:					Census, 30th June, 1954..				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
1 ..	29,205	12,110	12,158	12,232	65,705	62,022	16,509	19,345	19,203	117,079
2 ..	135,257	24,144	33,104	11,357	203,862	242,815	26,497	41,373	14,300	324,985
3 ..	172,288	17,901	25,646	5,689	221,524	241,859	16,400	23,793	6,356	288,408
4 ..	178,144	10,193	14,827	2,404	205,568	247,207	9,917	12,926	3,295	273,345
5 ..	117,858	4,562	5,812	977	129,209	153,006	4,449	4,743	1,229	163,427
6 ..	64,385	2,098	2,051	339	68,873	75,493	2,033	1,604	488	79,618
7 ..	32,669	985	775	153	34,582	33,245	891	549	218	34,903
8 ..	16,973	496	306	70	17,845	15,107	448	186	125	15,866
9 ..	6,911	146	80	23	7,160	5,983	115	55	53	6,206
10 and over ..	6,988	89	63	19	7,159	5,196	85	29	41	5,351
Total Private Dwellings ..	760,678	72,724	94,822	33,263	961,487	1,081,933	77,344	104,603	45,308	1,309,188
Total Inmates	3,008,429	203,390	265,259	70,594	3,547,672	3,944,181	204,571	264,646	92,576	4,505,974
Average number of inmates per Private Dwelling ..	3.95	2.80	2.80	2.12	3.69	3.65	2.64	2.53	2.04	3.44

For footnotes, see next page.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF INMATES, AUSTRALIA, 1947 AND 1954—continued.

Number of Inmates per Dwelling.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
OTHER URBAN.(c)										
1	18,520	2,838	1,229	941	23,528	39,178	4,609	2,945	1,883	48,615
2	53,774	6,107	4,043	1,326	65,250	112,952	7,231	7,333	2,211	129,727
3	60,924	4,853	3,328	870	69,975	107,678	4,986	5,085	1,389	119,138
4	61,336	2,889	2,318	424	66,967	110,022	3,056	3,161	756	116,995
5	42,519	1,477	1,021	174	45,191	73,416	1,479	1,383	278	76,556
6	24,827	734	406	64	26,031	39,436	768	557	132	40,893
7	13,595	377	203	33	14,208	18,961	353	211	51	19,576
8	7,636	219	89	17	7,961	9,348	166	60	21	9,595
9	3,266	69	34	4	3,373	3,777	56	32	11	3,876
10 and over ..	3,501	64	26	2	3,593	3,636	43	17	12	3,708
Total Private Dwellings ..	289,898	19,627	12,697	3,855	326,077	518,404	22,747	20,784	6,744	568,679
Total Inmates ..	1,140,137	58,651	38,823	9,579	1,247,190	1,913,307	63,029	58,201	16,430	2,050,967
Average number of Inmates per Private Dwelling ..	3.93	2.99	3.06	2.48	3.82	3.69	2.77	2.80	2.44	3.61
RURAL.(c)										
1	60,330	1,922	357	187	62,796	46,108	964	217	105	47,394
2	105,800	3,788	1,190	337	111,115	88,412	1,898	597	167	91,074
3	109,182	3,444	1,050	284	113,960	86,142	1,534	473	159	88,308
4	107,455	2,296	693	116	110,560	89,458	1,285	381	134	91,258
5	78,714	1,141	335	73	80,263	65,284	745	209	71	66,309
6	48,670	577	155	21	49,423	39,762	370	102	34	40,268
7	27,531	283	57	15	27,886	20,749	185	36	25	20,995
8	15,958	147	29	9	16,143	10,788	90	10	14	10,902
9	6,487	29	8	..	6,524	4,508	36	5	3	4,552
10 and over ..	7,349	33	6	1	7,389	4,471	18	3	2	4,494
Total Private Dwellings ..	567,476	13,660	3,880	1,043	586,059	455,682	7,125	2,033	714	463,554
Total Inmates ..	2,175,055	41,955	12,033	2,855	2,231,898	1,725,677	22,979	6,418	2,347	1,757,421
Average number of Inmates per Private Dwelling ..	3.83	3.07	3.10	2.74	3.81	3.79	3.23	3.16	3.29	3.77
TOTAL, AUSTRALIA.										
1	108,055	16,870	13,744	13,360	152,029	147,308	22,082	22,507	21,191	213,088
2	294,831	34,039	38,337	13,020	380,227	444,179	35,626	49,303	16,678	545,786
3	342,394	26,198	30,024	6,843	405,459	435,679	22,920	29,351	7,904	495,854
4	346,935	15,378	17,838	2,944	383,095	446,687	14,258	16,468	4,185	481,598
5	239,091	7,180	7,168	1,224	254,663	291,706	6,673	6,335	1,578	306,292
6	137,882	3,409	2,612	424	144,327	154,691	3,171	2,263	654	160,779
7	73,795	1,645	1,035	201	76,676	72,955	1,429	796	294	75,474
8	40,567	862	424	96	41,949	35,243	704	256	160	36,363
9	16,664	244	122	27	17,057	14,268	207	92	67	14,634
10 and over ..	17,838	186	95	22	18,141	13,303	146	49	55	13,553
Total Private Dwellings ..	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421
Total Inmates ..	6,323,621	303,996	316,115	83,028	7,026,760	7,583,165	290,579	329,265	111,353	8,314,362
Average number of Inmates per Private Dwelling ..	3.91	2.87	2.84	2.18	3.75	3.69	2.71	2.58	2.11	3.55

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received.

(b) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received.

(c) See letterpress on p. 287 regarding comparability as between Censuses.

(iv) *Nature of Occupancy.* At the 1954 Census, 52.5 per cent. of occupied private houses in Australia, for which particulars were supplied, were occupied by owners, 16.8 per cent. by purchasers by instalments, 28.1 per cent. by tenants, and 2.6 per cent. by others. The corresponding percentages in 1947 were—owners, 50.5 per cent; purchasers by instalments, 9.0 per cent; tenants, 37.6 per cent; and others, 2.9 per cent. Owner-occupied houses in Australia increased by 33.4 per cent. between 1947 and 1954, and those being purchased by instalments by 139.3 per cent., the increase in these two groups combined being nearly 50 per cent., while tenant-occupied houses decreased by 4.1 per cent.

In the Metropolitan Areas, 70.5 per cent. of all occupied private houses for which particulars were supplied were either owner-occupied or being purchased by instalments, as compared with 69.0 per cent. in the Other Urban areas, and 66.9 per cent. in the Rural Areas.

Tenants occupied by far the greater proportion of flats and other private dwellings.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NATURE OF OCCUPANCY, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Nature of Occupancy.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
METROPOLITAN URBAN.(c)										
Owner	325,942	13,401	8,368	617	348,328	512,632	19,525	12,272	1,899	546,328
Purchaser by Instalments	95,232	2,562	370	86	98,250	249,018	5,777	1,503	481	256,779
Tenant (Governmental Housing)(d)	328,974	55,776	84,889	31,890	501,529	48,011	379	4,127	1,795	54,312
Tenant	4,350	305	624	228	5,507	259,955	50,133	85,530	40,267	435,885
Caretaker						6,617	449	681	391	8,138
Other Methods of Occupancy	2,694	129	290	202	3,315	3,682	448	322	211	4,663
Not Stated	3,486	551	281	240	4,558	2,018	633	168	264	3,083
Total Private Dwellings	760,678	72,724	94,822	33,263	961,487	1,081,933	77,344	104,603	45,308	1,309,188
OTHER URBAN.(c)										
Owner	146,329	4,091	1,677	141	152,238	279,042	6,469	3,271	426	289,208
Purchaser by Instalments	25,712	580	84	16	26,392	77,063	1,158	280	70	78,571
Tenant (Governmental Housing)(d)	109,027	14,448	10,712	3,594	137,781	27,414	115	712	83	28,324
Tenant	3,685	159	109	48	4,001	122,146	14,367	16,214	6,043	158,770
Caretaker						5,715	186	184	67	6,152
Other Methods of Occupancy	2,232	53	53	13	2,351	4,440	150	81	28	4,699
Not Stated	2,913	296	62	43	3,314	2,584	302	42	27	2,955
Total Private Dwellings	289,898	19,627	12,697	3,855	326,077	518,404	22,747	20,784	6,744	568,679

For footnotes see next page.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NATURE OF OCCUPANCY, AUSTRALIA, 1947 AND 1954—*continued.*

Nature of Occupancy.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
RURAL.(c)										
Owner ..	333,131	3,641	635	52	337,459	283,022	2,778	431	47	286,278
Purchaser by Instalments ..	22,650	330	49	6	23,035	17,544	164	33	2	17,743
Tenant (Governmental Housing)(d) ..	160,572	8,801	3,107	960	173,440	16,543	66	96	35	16,740
Tenant ..		257	43	10	17,838	99,712	3,464	1,398	625	105,199
Caretaker ..	17,528	257	43	10	17,838	12,975	137	23	2	13,137
Other Methods of Occupancy ..	15,645	189	17	4	15,855	19,163	271	32	2	19,468
Not Stated ..	17,950	442	29	11	18,432	6,723	245	20	1	6,989
Total Private Dwellings ..	567,476	13,660	3,880	1,043	586,059	455,682	7,125	2,033	714	465,554

TOTAL, AUSTRALIA.

Owner ..	805,402	21,133	10,680	810	838,025	1,074,696	28,772	15,974	2,372	1,121,814
Purchaser by Instalments ..	143,594	3,472	503	108	147,677	343,625	7,099	1,816	553	353,093
Tenant (Governmental Housing)(d) ..	598,573	79,025	98,708	36,444	812,750	91,968	560	4,935	1,913	99,376
Tenant ..		721	776	286	27,346	481,813	67,964	103,142	46,935	699,854
Caretaker ..	25,563	721	776	286	27,346	25,307	772	888	460	27,427
Other Methods of Occupancy ..	20,571	371	360	219	21,521	27,285	869	435	241	28,830
Not Stated ..	24,349	1,289	372	294	26,304	11,325	1,180	230	292	13,027
Total Private Dwellings ..	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received. (c) See letterpress on p. 287 regarding comparability as between Censuses. (d) These figures were compiled from the answers furnished in response to the instruction on the Householder's Schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'".

(v) *Weekly Rent.* (a) *All Tenanted Private Dwellings.* The following table shows tenanted private dwellings in the Metropolitan Urban, Other Urban and Rural Areas of Australia classified according to weekly rent (unfurnished).

Information tabulated concerning rents was restricted to the actual rent paid per week by tenants for unfurnished private dwellings. Particulars of rents shown in the following tables are therefore on an *unfurnished* basis. Dwellings shown as rent "Not Stated" include those whose rents were shown on Householders' Schedules on a *furnished* basis, and those whose rents were not applicable (e.g., for shop and dwelling combined). In this section information on "tenanted private dwellings" relating to the 1954 Census *excludes particulars of dwellings occupied by "Tenants" (Governmental Housing) in each State*, i.e., those who furnished answers in response to the instruction on the Census Householder's Schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'". For the Australian Capital Territory and the Northern Territory, particulars of all tenanted private dwellings are included. Particulars for the 1947 Census relate throughout to all tenanted private dwellings.

TENANTED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO WEEKLY RENT (UNFURNISHED), AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Weekly Rent (Unfurnished).	Census, 30th June, 1947.				Census, 30th June, 1954.(a)				
	Private House. (b)	Share of Private House.(c)	Flat.	Total Tenanted Private Dwellings. (d)	Private House. (b)	Share of Private House.(c)	Flat.	Other.	Total Tenanted Private Dwellings.

METROPOLITAN URBAN.(e)

Under 5s. ..	303	77	20	456	206	64	29	70	369
5s. and under 10s. ..	2,992	1,157	110	4,664	1,290	238	51	97	1,676
10s. " " 15s. ..	22,678	4,551	626	28,903	8,292	1,231	171	403	10,097
15s. " " 20s. ..	44,526	4,984	1,847	53,095	16,680	1,486	461	556	19,183
20s. " " 25s. ..	68,155	7,272	5,342	82,739	33,203	3,634	1,582	1,191	39,610
25s. " " 30s. ..	67,162	6,308	8,520	83,418	36,380	3,037	3,252	1,144	43,813
30s. " " 35s. ..	48,973	4,979	13,045	67,933	37,612	4,573	6,332	1,541	50,058
35s. " " 40s. ..	23,343	2,201	12,468	38,456	25,523	2,298	8,371	837	37,029
40s. " " 50s. ..	15,745	1,636	14,242	31,958	34,047	4,517	16,250	1,470	56,284
50s. " " 60s. ..	4,778	467	5,489	10,854	14,278	2,327	10,642	855	28,102
60s. " " 70s. ..	1,883	151	2,226	4,309	9,327	1,523	6,294	584	17,728
70s. " " 80s. ..	702	45	1,047	1,815	4,287	602	3,163	286	8,338
80s. " " 90s. ..	446	11	621	1,084	2,679	421	2,199	167	5,466
90s. " " 100s. ..	206	9	271	487	940	116	1,283	66	2,405
100s. and over ..	440	10	679	1,129	2,877	282	3,398	165	6,722
Not Stated ..	26,642	21,918	18,336	90,229	36,062	23,900	22,259	30,844	113,065
<i>Total Tenanted Private Dwellings ..</i>	<i>328,974</i>	<i>55,776</i>	<i>84,889</i>	<i>501,529</i>	<i>263,683</i>	<i>50,249</i>	<i>85,737</i>	<i>40,276</i>	<i>439,945</i>
<i>Average Weekly Rent (Unfurnished) per Private Dwelling ..</i>	<i>25s. 9d.</i>	<i>23s. 6d.</i>	<i>37s. 9d.</i>	<i>27s. 5d.</i>	<i>34s. 10d.</i>	<i>35s. 8d.</i>	<i>51s. 11d.</i>	<i>37s. 4d.</i>	<i>38s. 3d.</i>

OTHER URBAN.(e)

Under 5s. ..	775	85	1	876	369	33	13	25	440
5s. and under 10s. ..	3,404	714	48	4,296	2,026	190	18	61	2,295
10s. " " 15s. ..	13,840	1,670	249	15,940	6,946	596	109	136	7,787
15s. " " 20s. ..	18,751	1,385	584	20,876	9,304	544	226	141	10,215
20s. " " 25s. ..	24,555	1,894	1,651	28,365	15,650	1,159	594	282	17,685
25s. " " 30s. ..	18,296	1,305	1,331	21,092	14,109	896	914	294	16,213
30s. " " 35s. ..	10,582	784	1,225	12,659	15,744	1,360	1,346	316	18,766
35s. " " 40s. ..	3,312	213	685	4,237	8,448	501	1,001	214	10,164
40s. " " 50s. ..	2,148	131	641	2,940	13,140	1,181	1,834	321	16,476
50s. " " 60s. ..	477	26	183	691	6,649	578	1,181	192	8,600
60s. " " 70s. ..	155	8	43	206	4,462	287	659	97	5,505
70s. " " 80s. ..	56	4	10	70	1,938	75	391	37	2,441
80s. " " 90s. ..	29	..	9	38	824	56	166	13	1,059
90s. " " 100s. ..	8	..	2	10	264	19	69	4	356
100s. and over ..	12	..	..	12	553	28	123	12	716
Not Stated ..	12,627	6,229	4,050	25,473	22,188	6,865	7,603	3,903	40,559
<i>Total Tenanted Private Dwellings ..</i>	<i>109,027</i>	<i>14,448</i>	<i>10,712</i>	<i>137,781</i>	<i>122,614</i>	<i>14,368</i>	<i>16,247</i>	<i>6,048</i>	<i>159,277</i>
<i>Average Weekly Rent (Unfurnished) per Private Dwelling ..</i>	<i>21s. 6d.</i>	<i>19s. 3d.</i>	<i>27s. 9d.</i>	<i>21s. 8d.</i>	<i>31s. 11d.</i>	<i>31s. 1d.</i>	<i>41s. 10d.</i>	<i>32s. 6d.</i>	<i>32s. 8d.</i>

For footnotes see next page.

TENANTED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO WEEKLY RENT (UNFURNISHED), AUSTRALIA, 1947 AND 1954—continued.

Weekly Rent (Unfurnished).	Census, 30th June, 1947.				Census, 30th June, 1954.(a)				
	Private House. (b)	Share of Private House.(c)	Flat.	Total Tenanted Private Dwellings. (d)	Private House. (b)	Share of Private House.(c)	Flat.	Other.	Total Tenanted Private Dwellings.
RURAL.(e)									
Under 5s.	5,758	137	4	5,915	1,266	29	8	7	1,310
5s. and under 10s.	19,212	758	40	20,063	6,437	132	15	9	6,593
10s. " " 15s.	30,873	1,276	199	32,405	10,356	240	36	49	10,681
15s. " " 20s.	21,598	877	288	22,816	7,920	177	54	19	8,170
20s. " " 25s.	19,506	957	428	20,951	11,644	282	129	81	12,136
25s. " " 30s.	9,469	444	301	10,253	5,850	147	88	27	6,112
30s. " " 35s.	5,075	247	213	5,557	5,622	190	95	36	5,943
35s. " " 40s.	1,315	57	76	1,450	1,670	49	42	11	1,772
40s. " " 50s.	1,109	49	89	1,249	3,682	129	96	24	3,931
50s. " " 60s.	318	7	26	351	1,560	58	51	14	1,683
60s. " " 70s.	134	3	9	146	981	20	27	5	1,033
70s. " " 80s.	28	2	2	32	359	8	7	1	375
80s. " " 90s.	21	..	1	22	248	4	5	2	259
90s. " " 100s.	2	..	..	2	75	2	..	..	77
100s. and over	14	..	..	14	206	6	2	..	214
Not Stated	46,140	3,987	1,431	52,214	42,003	1,991	745	340	45,079
Total Tenanted Private Dwellings ..	160,572	8,801	3,107	173,440	99,879	3,464	1,400	625	105,368
Average Weekly Rent (Unfurnished) per Private Dwelling ..	15s. 6d.	15s. 11d.	23s. 4d.	15s. 7d.	22s. 0d.	23s. 4d.	30s. 10d.	25s. 2d.	22s. 2d.
TOTAL, AUSTRALIA.									
Under 5s.	6,836	299	25	7,247	1,841	126	50	102	2,119
5s. and under 10s.	25,608	2,629	198	29,023	9,753	560	84	167	10,564
10s. " " 15s.	67,391	7,497	1,074	77,248	25,594	2,067	316	588	28,565
15s. " " 20s.	84,875	7,246	2,719	96,787	33,904	2,207	741	716	37,568
20s. " " 25s.	112,216	10,123	7,421	132,055	60,497	5,075	2,305	1,554	69,431
25s. " " 30s.	94,927	8,057	10,152	114,763	56,339	4,080	4,254	1,465	66,138
30s. " " 35s.	64,630	6,010	14,483	86,149	38,978	6,123	7,773	1,893	74,767
35s. " " 40s.	27,970	2,471	13,229	44,143	35,641	2,848	9,414	1,062	48,965
40s. " " 50s.	19,002	1,816	14,972	36,147	50,869	5,827	18,180	1,815	76,691
50s. " " 60s.	5,573	500	5,698	11,896	22,487	2,963	11,874	1,061	38,385
60s. " " 70s.	2,172	162	2,278	4,661	14,770	1,830	6,980	686	24,266
70s. " " 80s.	786	51	1,059	1,917	6,584	685	3,561	324	11,154
80s. " " 90s.	496	11	631	1,144	3,751	481	2,370	182	6,784
90s. " " 100s.	216	9	273	499	1,279	137	1,352	70	2,838
100s. and over	466	10	679	1,155	3,636	316	3,523	177	7,652
Not Stated	85,409	32,134	23,817	167,916	100,253	32,756	30,607	35,087	198,703
Total Tenanted Private Dwellings ..	598,573	79,025	98,708	812,750	486,176	68,081	103,384	46,949	704,590
Average Weekly Rent (Unfurnished) per Private Dwelling ..	22s. 8d.	22s. 0d.	36s. 7d.	24s. 2d.	32s. 2d.	34s. 2d.	50s. 6d.	36s. 2d.	35s. 0d.

(a) The figures shown for 1954 exclude dwellings occupied by "Tenants" (Governmental Housing), except those in the Northern Territory and the Australian Capital Territory. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received. (d) Includes "other private dwellings" not shown in the table. (e) See letterpress on p. 287 regarding comparability as between Censuses.

At the 1947 Census, nearly 83 per cent. of the tenanted private houses in Australia shown in the table above had weekly rentals of between 10s. and 35s.; at the 1954 Census, only 61 per cent. were within these limits. In 1947, 6 per cent. had rentals below 10s. and 11 per cent. above 35s. In 1954, 3 per cent. had rentals below 10s. and 36 per cent. above 35s. At the 1947 Census, 88 per cent. of the flats shown for Australia had rentals of between £1 and £3 a week, 5 per cent. were below this range, and 7 per cent. above it. At the 1954 Census, the corresponding proportions were:—74 per cent., 2 per cent. and 24 per cent. Dwellings whose rents were not stated were excluded in obtaining these proportions.

The average rentals shown in this table for all tenanted private dwellings in Australia at the 1954 Census were 45 per cent. higher than in 1947 (42 per cent. higher for houses and 38 per cent. higher for flats). Metropolitan rentals in 1954 were higher by 40 per cent., 35 per cent. and 38 per cent., respectively, than in 1947.

In all such comparisons as these, the difference in basis between the 1947 and 1954 Censuses, referred to in the opening paragraph above, and also the differences in the Urban and Rural divisions (*see* p. 287), should be borne in mind.

(b) *Tenanted Private Houses of Three to Six Rooms.* The comparisons in the following table, restricted to houses of three to six rooms, with outside walls of wood, brick or stone, are of particular interest, since this group comprises more than three-quarters of all tenanted private houses in Australia.

AVERAGE WEEKLY RENT(a) PER ROOM OF TENANTED PRIVATE HOUSES, THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Particulars.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54. (Australia.)
	Urban.		Rural.	Total, Aus- tralia.	Urban.		Rural.	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Private Houses(a) with Walls of—	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Wood—									
3 rooms	5 1	5 1	3 10	4 7	7 3	7 11	5 10	7 1	2 6
4 "	5 0	4 7	3 5	4 4	6 9	7 0	4 10	6 4	2 0
5 "	4 9	4 3	3 3	4 2	6 8	6 4	4 6	6 1	1 11
6 "	4 5	3 10	2 11	3 10	5 10	5 5	3 11	5 3	1 5
3 to 6 rooms ..	4 9	4 3	3 3	4 1	6 6	6 3	4 6	5 11	1 10
Brick or Stone—									
3 rooms	5 7	5 7	4 5	5 6	8 3	9 4	6 8	8 3	2 9
4 "	5 9	5 0	3 8	5 7	7 10	7 2	5 1	7 8	2 1
5 "	5 6	4 9	3 8	5 3	7 2	6 8	4 9	7 0	1 9
6 "	5 4	4 6	3 6	5 1	6 9	6 1	4 3	6 6	1 5
3 to 6 rooms ..	5 6	4 9	3 8	5 4	7 3	6 8	4 9	7 1	1 9
Wood, Brick or Stone—									
3 rooms	5 5	5 3	3 11	5 1	7 11	8 4	6 0	7 9	2 8
4 "	5 6	4 8	3 6	5 0	7 6	7 1	4 11	7 1	2 1
5 "	5 3	4 4	3 4	4 9	7 0	6 5	4 6	6 6	1 9
6 "	5 0	4 1	3 1	4 6	6 5	5 7	4 0	5 11	1 5
3 to 6 rooms ..	5 3	4 5	3 4	4 9	7 0	6 5	4 7	6 7	1 10

(a) Rents relate to tenanted private houses (one family) in 1947 and to tenanted private houses, excluding those occupied by "Tenants" (Governmental Housing) in each State, in 1954.

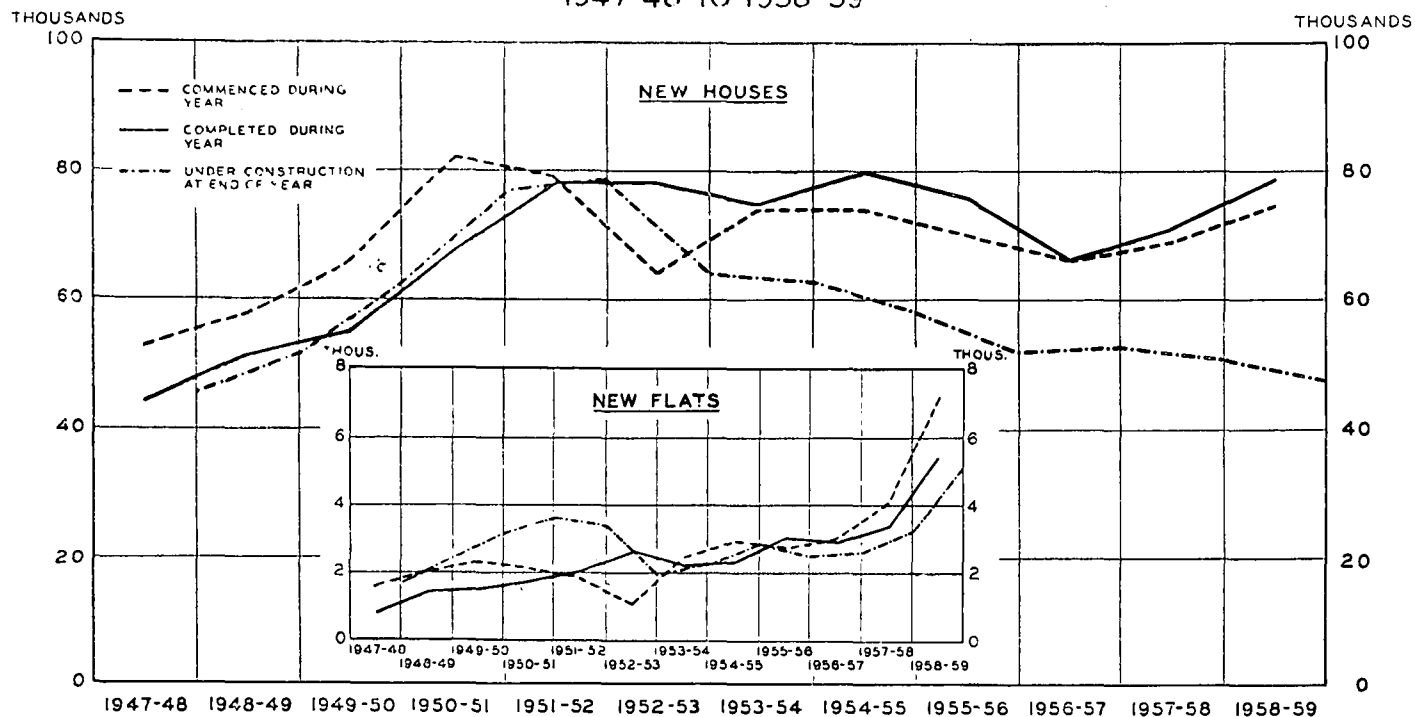
The average rent of 3- to 6-roomed tenanted private houses of wood, brick or stone increased by about 40 per cent. between 1947 and 1954 (wood by 46 per cent. and brick by 34 per cent.). The average for 3-roomed tenanted houses of wood, brick or stone increased by about 53 per cent., 4-roomed houses by about 42 per cent., 5-roomed houses by about 39 per cent., and 6-roomed houses by 33 per cent. The increases in respect of houses of wood were higher than those for brick or stone in each case. The increases in the Metropolitan Areas were relatively lower than for Australia as a whole.

(vi) *Date of Building.* The numbers of occupied private dwellings in Australia at the Census of 30th June, 1954, classified according to date of building, were as follows:—Built before 30th June, 1947, 1,758,448; 1st July–31st December, 1947, 19,742; 1948, 60,360; 1949, 63,897; 1950, 78,965; 1951, 85,852; 1952, 91,712; 1953, 88,467; 1954, 44,725; built after 30th June, 1947 but particular year not stated, 19,641; not stated, 31,612; total, 2,343,421.

(vii) *Facilities, etc.* At the 1947 Census, a detailed question was asked concerning facilities, and a summary of the information obtained therefrom was published on page 571 of Official Year Book No. 38. The question asked at the 1954 Census was much less detailed, and was designed partly to clarify replies to the question on class of dwelling. Information obtained in reply to this question and to that on farm dwellings in 1954 was not compiled.

NEW HOUSES AND FLATS : AUSTRALIA

1947-48 TO 1958-59



§ 3. Government Assistance to Housing Since 1945.

1. **Agreements between the Commonwealth and State Governments.**—(i) *The 1945 Agreement.* In November, 1945, the Commonwealth Government entered into an agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Tasmania withdrew from the Agreement in August, 1950 and South Australia did not begin to operate under it until July, 1953. The Agreement expired on 30th June, 1956. Features of the 1945 Commonwealth and State Housing Agreement were:—

- (a) The Commonwealth Government agreed to advance to each participating State the amount expended for the construction of housing projects between 3rd December, 1943, and the date of the Agreement, and the amount required for the State's housing projects during a further period of ten years.
- (b) Each advance of money was to be repaid with interest thereon in equal annual instalments within a maximum period of 53 years from the date the advance was made, the interest to be at a rate not exceeding that payable in respect of the latest Commonwealth loan at the date of the advance.
- (c) Rents charged were to be economic rents, i.e., the rents were to be sufficient to meet repayments by the State to the Commonwealth of the capital cost of each dwelling with interest and of current outgoings such as the cost of maintenance, administration, rates and taxes and insurance.
- (d) The rental provisions of the Agreement provided for a system of rental rebates, whose basic principle was that a family with an income at the basic wage level did not need to pay more than one-fifth of its income in rent, regardless of the economic rent of the dwelling.
- (e) The Commonwealth Government was to bear three-fifths, and the State concerned two-fifths, of all cash losses sustained by the States, on an annual basis.

The following table shows the amount of money advanced to each State under the 1945 Agreement:—

1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: ADVANCES TO STATES.

(£'000.)

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
1945-46	2,525	3,100	425	..	460	285	6,795
1946-47	5,530	4,000	750	..	735	..	11,015
1947-48	5,345	5,000	800	..	1,260	900	13,305
1948-49	6,295	5,200	900	..	1,647	450	14,492
1949-50	6,600	6,300	1,250	..	1,965	1,100	17,215
1950-51	7,890	8,600	2,700	..	2,350	100	21,640
1951-52	8,514	10,061	4,489	..	3,483	..	26,547
1952-53	12,100	11,270	3,730	..	2,900	..	30,000
1953-54	12,450	12,000	4,500	4,500	3,750	..	37,200
1954-55	10,800	9,450	1,800	3,600	3,500	..	29,150
1955-56	10,800	10,800	3,000	3,600	5,000	..	33,200
Total ..	88,849	85,781	24,344	11,700	27,050	2,835	240,559

The number of dwellings erected in each State under the 1945 Agreement is shown in the following table:—

1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: NUMBER OF DWELLINGS(a) COMPLETED.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
1945-46	1,589	1,768	224	..	293	154	4,028
1946-47	2,200	1,458	470	..	537	208	4,873
1947-48	2,582	2,231	547	..	849	218	6,427
1948-49	3,440	2,357	573	..	976	184	7,530
1949-50	3,076	2,454	643	..	981	284	7,438
1950-51	3,273	2,699	554	..	1,269	82	7,877
1951-52	3,708	2,970	1,082	..	1,023	..	8,783
1952-53	4,280	3,238	1,635	..	1,111	..	10,264
1953-54	5,109	3,590	1,506	1,006	1,472	..	12,683
1954-55	4,932	3,960	1,382	2,013	2,031	..	14,318
1955-56	3,529	4,152	840	1,885	1,531	..	11,937
Total ..	37,718	30,877	9,456	4,904	12,073	1,130	96,158

(a) Includes flats.

Initially, houses constructed under the 1945 Commonwealth and State Housing Agreement could be sold to tenants, provided the tenant was able to arrange payment of the full purchase price of the house to the State Authority immediately on sale. Under this arrangement sales to tenants were relatively few. In April, 1955, the Commonwealth and the States entered into a supplementary agreement whereby the State Governments were permitted to sell houses to tenants on terms. These were:—deposit, 5 per cent. of the first £2,000 and 10 per cent. of the balance of the purchase price of the house, the maximum amount of the remaining balance being limited to £2,750 and repayment of the balance to be made over a maximum period of 45 years at an interest rate of 4½ per cent. a year. Tenants eligible under the War Service Homes Act were entitled to purchase houses built under the Agreement on the terms provided in that Act. The number of houses sold under the Agreement is as follows:—

1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: HOUSES SOLD.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Total.(a)
1947-48 .. ..	..	..	109	..	..	109
1948-49	15	..	63	..	..	78
1949-50	98	6	12	..	115	231
1950-51	122	39	94	..	508	763
1951-52	338	26	86	..	480	930
1952-53	528	13	13	..	309	863
1953-54	403	6	16	1	94	520
1954-55	165	..	26	7	96	294
1955-56	733	1,289	121	275	177	2,595
1956-57	1,538	1,363	93	66	101	3,161
1957-58	769	1,050	137	54	94	2,104
1958-59	485	1,053	85	47	61	1,731
Total ..	5,194	4,845	855	450	2,035	13,379

(a) Tasmania did not operate under the 1945 Agreement after August, 1950.

(ii) *The 1956 Agreement.* In 1956, the Commonwealth and the States entered into a new agreement, under which added emphasis was placed on the construction of homes for private ownership. Features of the agreement are:—

- (a) The Commonwealth Government is providing finance to the States over a period of five years ending 30th June, 1961, for the erection of housing projects.
- (b) For the first two years of the agreement, 20 per cent. of the money allocated to each State was advanced to building societies and other approved institutions for lending to private house builders. During the remaining three years of the agreement this proportion is 30 per cent.
- (c) The remaining 70 per cent. (first two years, 80 per cent.) of the allocation to each State may be used by the States for the erection of houses for either rental or sale. The States determine the type of houses to be erected, their location and the selection of tenants. They also fix the terms of selling.
- (d) The Commonwealth may specify that a portion, not exceeding 5 per cent., in any one year, of the moneys referred to in (c) above, be set aside for the erection of houses for serving members of the defence forces nominated by the Commonwealth. The Commonwealth provides supplementary advances to the States equal to the amounts set aside by them for this purpose.
- (e) Each advance of money and interest thereon is to be repaid in equal annual instalments over a period of 53 years from the date each advance is made. The rate of interest chargeable on advances is the long term bond rate, less three quarters of one per cent. when the bond rate does not exceed 4½ per cent. per annum, and, less one per cent. when the bond rate exceeds 4½ per cent. per annum. The effective interest rate during the first three financial years of this agreement (1956–57 to 1958–59) was 4 per cent. per annum, i.e., 5 per cent. less one per cent.

The following table shows progress made under the 1956 Housing Agreement during 1958–59:—

1956 COMMONWEALTH AND STATE HOUSING AGREEMENT: SUMMARY.
1958–59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
Advances to States .. £'000	12,000	10,300	3,310	5,000	3,000	2,200	35,810
Supplementary Advances (Service Housing) .. £'000	420	360	116	175	103	20	1,194

STATE HOUSING PROGRAMME.

Allocation of Advances (70 per cent.) .. £'000	8,400	7,200	2,317	3,500	2,100	1,540	25,057
Dwellings—							
Commenced	3,970	2,713	748	1,268	670	520	9,889
Completed(a)	3,154	2,447	1,005	1,454	841	416	9,317
Under construction at 30th June, 1959	2,308	1,418	245	1,095	205	226	5,497
Sold	2,022	1,454	647	205	205	315	4,848

SERVICE HOUSING.

Funds Allocated(b) .. £'000	840	720	232	350	206	40	2,388
Agreed Programme (Number of Dwellings)	262	205	75	127	70	11	750
Dwellings Completed(c)	297	168	83	120	73	11	752

HOME BUILDERS' ACCOUNT.

Allocation of Advances (30 per cent.) .. £'000	3,600	3,100	993	1,500	900	660	10,753
Amount drawn by Institutions £'000	3,860	3,661	1,000	1,510	924	525	11,480
Dwellings—							
Approved	981	1,158	242	586	363	123	3,453
Commenced	899	1,167	268	527	340	122	3,323
Completed	761	(d) 1,113	296	352	347	124	2,993
Purchased—							
New Dwellings	432	246	154	217	42	34	1,125
Other	93	..	..	..	..	..	93

(a) Includes Service Housing. (b) Fifty per cent. by Commonwealth and 50 per cent. by State.
(c) Included in State Housing Programme above. (d) Includes dwellings purchased which have been completed during 1958–59.

2. **Imported Houses.**—With the object of supplementing the number of houses being constructed by the building industry within Australia, the Commonwealth Government in 1950 sponsored a plan to import prefabricated houses from overseas. Under the States Grants (Imported Houses) Act 1950, the Commonwealth undertook to pay a subsidy not exceeding £300 per house to assist approved State Housing Authorities to meet the cost of houses brought to Australia from overseas.

Under this plan, the Commonwealth paid subsidy on 13,979 houses imported by State Authorities. Of these, 7,613 units were erected under the 1945 Commonwealth and State Housing Agreement on behalf of the State Governments themselves, whilst other houses were erected for governmental authorities concerned with public utilities such as the generation of electricity, railways and water supply.

A total of 4,167 houses, imported by the Commonwealth Government, were erected by the Department of Works and the Snowy Mountains Hydro-Electric Authority.

Of the 18,182 houses, imported and erected the United Kingdom supplied slightly more than half, with France, Austria and Sweden the next largest suppliers in that order.

Expenditure by the Commonwealth Government on subsidies to the States importing houses under this plan was as follows: New South Wales, £252,000; Victoria, £1,645,200; Queensland, £703,800; South Australia, £1,173,000; Western Australia, £419,700; Total, £4,193,700. Imports of houses under this scheme ceased in January, 1954.

3. **Housing Schemes in Commonwealth Territories.**—(i) *Northern Territory.* In 1946, control of all Government-owned residences in the Territory (excluding those belonging to the Defence Services, Commonwealth Railways or attached to post offices) was vested in the Administration. The Administration provides houses for rental to Commonwealth employees.

- (a) In 1953, a Housing Scheme was inaugurated under which potential house builders may obtain loans of up to £2,750 for the erection of houses, the purchase or extension of existing houses or the discharge of mortgages on houses. Up to 31st August, 1959, 452 loans had been approved. These were for:—new houses, 333; extensions to existing houses and/or discharge of mortgages, 37; purchase of existing houses, 82.
- (b) In January, 1959, an Ordinance was passed to set up a Housing Commission to construct houses for letting at an economic rental to low income groups.
- (c) The Administration is prepared to sell to its tenants the houses they occupy for cash or on terms with a minimum deposit of 5 per cent. of the first £2,000, and 10 per cent. of the balance. The maximum advance by mortgage is £2,750. Repayment is over a maximum of 45 years, and interest is at present 4½ per cent.

(ii) *Australian Capital Territory.* The Commonwealth Government provides houses primarily for rental to employees of Government organizations and to persons privately employed in the Australian Capital Territory.

From 1st July, 1945, to 30th June, 1959, 6,244 houses and flats were erected for the Department of the Interior for letting.

Government rental houses may be purchased by tenants and the basis of sale is a minimum deposit of 5 per cent. of the first £2,000 of the purchase price fixed by the Department of the Interior and 10 per cent. of the balance, with a maximum advance by way of mortgage of £2,750. Repayment may be made over a maximum period of 45 years on all types of houses. Interest charged on loans is 4½ per cent. per annum. Since 1950, 1,491 houses have been sold to tenants.

Loans may be granted by the Commissioner for Housing to enable persons to purchase, erect or enlarge houses in the Territory or to discharge mortgages. Where the Commissioner's valuation of the property concerned does not exceed £2,000 the maximum loan may not exceed 95 per cent. of the valuation. If the Commissioner's valuation exceeds £2,000 the maximum loan is 95 per cent. of the first £2,000 and 90 per cent. of the balance (but in no case can the amount lent exceed £2,750). Repayment may be made over a maximum period of 45 years. The current rate of interest is 5 per cent. per annum. From 1st July, 1949, to 30th June, 1959, 621 loans were granted.

(iii) *Papua and New Guinea.* The Housing Loans Ordinance 1953 permits the advance of loans of up to £2,750 to any member of the community for the erection of a house or the purchase or extension of an existing house. The loans are limited to declared township areas and are repayable over a maximum period of 35 years. The effective rate of interest is 5 per cent. per annum. Up to 30th June, 1959, loans totalling £250,678 had been approved.

The Administration has this year started a project for providing low-cost houses for rental to indigenes and mixed-bloods. Tenders for the construction of 50 of these houses have been called.

4. **Other Housing Schemes in the States.**—(i) *General.* In each State, the major Government housing schemes operated by the State Housing Authorities are those provided for under the Housing Agreements between the Commonwealth and State Governments referred to earlier. Other State Government assistance to housing is referred to in the following paragraphs.

(ii) *New South Wales.* The principal schemes operating in New South Wales are:—

(a) *Commission-Financed Advances.* Under the Housing Act 1912–55, the Housing Commission is empowered to provide finance to persons to have houses erected on their own land, to purchase existing dwellings, or to effect improvements or repairs to houses. In respect of advances made under the Act prior to 1952, the maximum amount that could be lent was limited to £1,540, repayment of which could be made over a maximum period of 45 years. Interest charged was at the rate of $4\frac{1}{2}$ per cent. a year. Under this scheme 786 houses were erected. Regulations prescribing the present maximum amount that may be advanced and the limitation on income which may be received by an applicant for a loan have not been published and at present no advances are being made.

(b) *Rental Housing (other than Housing Agreements).* Upon request by other State Departments, the Housing Commission will erect houses for employees of those Departments, e.g., Education, Agriculture, Water Conservation, etc. These Departments provide the necessary land and funds needed to finance the erection of the houses. Rentals charged are fixed by the Departments in accordance with the salaries of the officers occupying the houses. The number of rental houses erected (other than under the Housing Agreements) is 811.

(c) *Sales Scheme.* During 1953–54, the Housing Commission began the erection of 100 houses for sale. Under this scheme, the Commission acted as the construction authority whilst administrative arrangements are carried out by the Rural Bank. Houses were sold on the basis of 10 per cent. deposit with repayment of the balance over a maximum period of 40 years. Construction of all houses has been completed.

(iii) *Victoria.* In 1956, a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants. Except in special circumstances, no loan will be granted if the borrower or wife or husband of the borrower already owns a house in Victoria at the date of the proposed mortgage.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed 95 per cent. of the value of the security (house and land) and are not made if the value of the security exceeds £4,500. In the case of purchase the house must not have been erected more than two years before the date of the mortgage. Repayment of loans may be made over a maximum period of 30 years, with interest charges determined by the Trust. At 30th June, 1959, 1,253 loans totalling £3,395,725 had been made.

(iv) *Queensland.* In this State there are two housing schemes operating—

(a) Under the State Housing Acts, 1945 to 1957, the Queensland Housing Commission makes advances to eligible applicants on the security of homes to be erected. A person to be eligible must be the proprietor of a suitable building site, must not already own a dwelling and must undertake to use the completed dwelling as a home for himself and family. The present maximum advances allowable under the Acts are £2,750 for a timber-frame building, £2,850 for a brick veneer and £3,100 for a brick or concrete building. The rate of interest at present chargeable on advances is $5\frac{1}{4}$ per cent. a year. Repayment may be made at the option of the borrower over either a 30-year or a 45-year period. A borrower or purchaser who elects to repay over a 30-year period, who is under 40 years of age, and who has passed a prescribed medical examination, is entitled to free life insurance cover in an amount sufficient to liquidate his indebtedness to the Commission in the event of his death before his loan has been fully repaid, provided that the maximum benefit payable under such insurance cover does not exceed

£2,250. The total amount advanced on completed dwellings up to 30th June, 1959, was £19,923,410. The number of dwellings constructed under these Acts up to 30th June, 1959, was 26,190.

- (b) *Workers homes* are erected by the Queensland Housing Commission under the Workers' Homes Act 1919–1957. These homes are intended for persons who are not the owners of building sites, and applications are confined to persons with a net annual income for taxation purposes of not more than £800. The Housing Commission builds the home to suit the applicant's needs, on Crown Land, or on land purchased for the purpose, which is then converted to perpetual leasehold tenure. An applicant pays a deposit of 5 per cent. of the purchase price of the home and the balance by monthly rent over a term of 30 to 45 years. The rate of interest is $5\frac{1}{2}$ per cent. a year. The number of houses constructed under this Act up to 30th June, 1958, was 2,346. No houses were completed under this Act in the year ended 30th June, 1959.

(v) *South Australia.* In South Australia, the Housing Trust builds houses for both rental and sale and, in addition, administers an emergency dwelling scheme for the South Australian Government. From July, 1946 to 30th June, 1959, 34,315 houses were erected by the Trust in both city and country areas.

- (a) *Rental Houses.* The majority of the Trust's rental houses are of brick or stone construction and are built in pairs in housing groups. The Trust has a large number of flats for rental, tenancy of which is restricted to married couples and others without young children. Specially designed flats for pensioners and other elderly persons of limited means are built. The Trust administers a scheme, on behalf of the South Australian Government, to assist people in country towns who cannot afford to pay an economic rent. Those assisted include war widows, deserted wives with families, servicemen's widows, pensioners and incapacitated ex-servicemen's families. Rents charged for accommodation are generally based on the overall cost of construction, and vary not only according to the size of the dwelling but also as to date of erection. As at 1st November, 1959, the rents of 5-roomed houses (i.e., 3 bedrooms) ranged from £2 2s. a week for houses of an older type to £3 7s. 6d. a week for houses then being completed. Factors taken into consideration when allotting rental houses include date of application, housing need and suitability of tenant. Persons with high incomes are asked to consider purchasing their own homes.
- (b) *Sales Scheme.* Houses built under this scheme, which was inaugurated in 1946, are of solid or timber-frame construction. More than 16,150 have been completed in both metropolitan and country areas since the scheme began. When houses are sold, the usual practice is for the Trust to recover the total cost of the house and land by the purchaser paying the total amount in cash or (as is usually the case) paying a deposit (which varies according to the type of house—at present £350 for a timber-frame house and £550 for a 5-roomed brick house—and the purchaser's ability to pay) and raising the balance by way of mortgage. In cases where the deposit and first mortgage are insufficient, the Trust may advance the balance by way of a second mortgage, the repayment term of which is a maximum of 30 years, interest being at the rate of $5\frac{1}{2}$ per cent. a year. In 1956, the Trust began the erection of houses, which may be of solid or timber-frame construction or a mixture of both, for individuals on their own land. Houses are built by contract under the Trust's supervision. Prices for building and supervision of the standard houses covered by the scheme in late 1959 ranged from £2,950 for a 2-bedroom brick house to £4,600 for a 6-roomed (2-storey) house.
- (c) *Rural Housing.* In order to assist primary producers, the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting prefabricated houses to the site. At the end of 1959, prices for houses erected on level sites within 100 miles of Adelaide ranged from £2,150 for a 2-bedroom minimum type timber house to £2,750 for a 3-bedroom, asbestos cement sheeted, timber house.

(vi) *Western Australia.* The State Housing Commission is encouraging home ownership under the State Housing Act 1946–58, which is a continuation of the Workers' Home Board Act, originally promulgated in 1911.

Purchases can be arranged under—(a) a Freehold scheme, either by way of mortgage or contract of sale, and (b) Leasehold on either a perpetual Crown Lease or a lease for a term of years from the Commission. Under the Leasehold scheme purchasers can convert to freehold conditions upon having a 10 per cent. equity in the improvements and agreeing to purchase the land at the valuation originally determined at the date of commencement of the lease.

The housing authority builds the houses by private contract on land provided by the applicant or the Commission. The maximum loan is £2,500 under the State Housing Act except for houses built north of the 26th parallel of latitude in which case the Minister can approve of an advance exceeding £2,500.

To proceed under the mortgage conditions a deposit of not less than 10 per cent. is required but under the contract of sale or leasehold provisions the minimum deposit is £100. The interest rate in both cases is 5½ per cent. per annum and the repayment period is 45 years.

To obtain assistance an applicant cannot have an income exceeding £1,093 per annum plus £25 a year for each dependent child under 16 years of age. This figure varies according to the movement of the basic wage. However, north of the 26th parallel the Minister may allow a higher income family to be assisted.

A second mortgage scheme exists under the State Housing Act which provides that assistance be limited to those applicants who are building or purchasing new residential improvements, the cost of which does not exceed £3,000. By policy decision the Commission limits the second mortgages to a maximum of £1,000.

The number of houses completed under this Act to 30th June, 1959, was—Freehold 1,002, Leasehold 2,375, assistance by second mortgage 507.

(vii) *Tasmania*. The Agricultural Bank is authorized under the terms of the Homes Act 1935 to make loans to eligible persons for home building on the security of a first mortgage over the property. To be eligible a person must be married or be about to marry or have dependants for whom it is necessary to provide a home. At present, there are no statutory limitations as to the maximum income which an eligible applicant may receive. However, it is the policy of the Bank not to make loans to persons who are well able to provide houses for themselves. The maximum amount which the Bank will lend at present is £3,300 on homes built in proclaimed brick areas, and £3,000 on timber houses. The rate of interest at present charged is 5½ per cent. a year. Present policy is to allow a maximum of 31 years for repayment of loans.

5. War Service Homes.—The provision of War Service Homes is a function of the War Service Homes Division of the Department of National Development, and the administration of the War Service Homes Act is under the control of the Director of War Service Homes.

The War Service Homes Act 1918–1956 is a measure for the provision of homes for Australian ex-servicemen who served during the 1914–1918 War or the 1939–1945 War and, subject to the statutory provisions of the Act, to persons with service in Korea or Malaya. Provision is made also for assistance to the female dependants of Australian ex-servicemen and other classes of eligible persons as defined in the Act. Assistance may be granted to an eligible person and the wife or husband of that person, as the case may be, as joint tenants.

The maximum amount of loan or advance which may be granted under the Act is £2,750. The period of repayment may be approved up to 45 years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of 50 years.

The War Service Homes Division does not provide homes for occupation on a purely tenancy basis.

From the inception of operations under the War Service Homes Act to 30th June, 1959, (figures in parentheses indicate cases where eligibility has been established as a result of service during the 1939–45 War or in Korea or Malaya), 199,407 (146,764) applications were approved; 75,740 (52,326) homes were built, or assistance to build them was given; 81,437 (64,999) homes were purchased; and 21,034 (17,328) mortgages were discharged. The total number of homes provided under the War Service Homes Act to 30th June, 1959, was 178,211 including 134,653 to persons who served during the 1939–45 War or in Korea or Malaya. In addition, the Division had approved 16,523 transfers and resales, of which 7,645 were in respect of persons whose eligibility had been established as a result of service during the 1939–45 War or in Korea or Malaya. Applications approved under the Commonwealth-State Housing Agreements of 1955 and 1956 numbered 1,676 (1,578) and homes purchased 1,618 (1,531).

During 1958–59, 12,630 (11,865) applications were approved; 5,254 (5,063) homes were built or assistance to build them was given; 6,660 (6,235) homes were purchased; and

1,497 (1,437) mortgages were discharged. The total number of homes provided during the year 1958–59 was 13,411 (12,735). Transfers and resales approved numbered 1,020 (874). Applications approved under the Commonwealth-State Housing Agreements of 1955 and 1956 numbered 217 (203) and homes purchased 238 (232).

At 30th June, 1959, 1,562 homes, including 206 group homes, were in course of construction; 501 contracts, of which 68 were for group homes, had been let but work had not started; and 405 tenders, including 63 for group homes, had been called but not finally dealt with. The majority of these homes are being provided for persons who served during the 1939–45 War.

The total capital expenditure from inception to 30th June, 1959, was £329,998,416, including £35,158,814 for 1958–59. Receipts from inception to 30th June, 1959, amounted to £139,065,703, including £16,769,375 during 1958–59. Of the total receipts, £68,853,242 had been paid to the National Debt Sinking Fund, including £7,559,838 for 1958–59.

At 30th June, 1959, the total amount of insurances in force, including cover notes, amounted to £422,035,406. During 1958–59, the premium income amounted to £322,236, and expenditure from the War Service Homes Insurance Trust Account to £169,637.

At 30th June, 1959, arrears of instalments outstanding amounted to £570,115, or 0.43 per cent. of the total instalments due.

6. Other Forms of Government Assistance.—(i) *General.* In addition to the assistance given to housing as outlined above, the Commonwealth and State Governments, through advances by Government Banks and the exercise of certain guarantees of the operations of Co-operative Terminating Building Societies by State Governments, further assist in making finance available for the erection and purchase of houses.

(ii) *Government Banks.* The terms and conditions governing the making of advances may be altered from time to time; consequently, no attempt has been made to tabulate them. However, the usual loan for a house of solid construction (brick, etc.) is generally between £2,500 and £3,000. The average loan for a timber-frame house is £2,250. Interest rates charged average 5½ per cent. a year. In some institutions this may be changed, usually after from 5 years to 10 years from the date of the loan. The maximum period of repayment ranges from about 20 years for timber-frame houses to 30 to 40 years for a house of solid construction.

(iii) *Building Societies.* There are some 1,700 building societies in Australia, over 95 per cent. of which are of the terminating type. Most of the terminating societies are in New South Wales and Victoria, where the movement derives its strength from State legislation, under which the Government of the State guarantees loans made to the societies. Terminating societies also operate in Queensland, where legislation has recently been introduced to provide a government guarantee for loans made to them, and in Western Australia and Tasmania. A number of terminating societies of the Starr-Bowkett type, an earlier and now less popular form of terminating society, operate in all States.

In addition to the terminating societies, there are a number of permanent building societies operating in all States under State legislation. State Governments do not generally guarantee the borrowings or lendings of these societies. However, in Western Australia the Housing Loan Guarantee Act, 1957 provides guarantees in respect of loans made by approved lending institutions (including permanent building societies), to individuals on the security of a mortgage. A premium, one-quarter of 1 per cent. of the balance of the loan outstanding at set intervals, is payable by the lender in return for the guarantee.

§ 4. Statistical Summary—New Building:

1. General.—The statistics in this section relate to the operations of private contractors, Government authorities and owner-builders, with the exception of those relating to employment, which do not include the numbers of persons working on owner-built houses.

The following outlines the scope of the statistics; (i) only the erections of new buildings as distinct from the constructions of railways, bridges, earthworks, water storage, etc., is covered; (ii) major new additions to existing buildings are included as new buildings; (iii) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining lists of persons who undertake this work; (iv) converted military huts and temporary dwellings are excluded; (v) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); (vi) imported prefabricated houses are included; (vii) details obtained from Government authorities and building contractors refer to all areas whereas details for owner-builders cover only areas subject to building control by Local Government Authorities.

These statistics are available for each quarter from the September quarter, 1945.

More detailed information on building activity may be found in the *Quarterly Bulletin of Building Statistics*.

The following definitions of terms used in this section are necessary for interpretation of the data presented:—

Owner-built. An "owner-built" house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors and Government instrumentalities which undertake the erection of new buildings.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Employment. Figures relate to persons actually working on the jobs of contractors who undertake the erection of new buildings and of Government instrumentalities which erect new buildings on their own account. They include persons actually engaged on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and instrumentalities. The figures include working principals and their employees, men working as or for sub-contractors, and men temporarily laid off on account of weather.

Contractors are asked to give details of the persons employed on a specified day but, because of frequent movement between jobs and because some persons (such as electricians, etc.) may work on several jobs which are under construction simultaneously, some duplication may occur.

The figures exclude persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

2. New Houses.—(i) *Commenced, Completed and Under Construction, 1954–55 to 1958–59.* The next table provides a summary of the number of new houses commenced, completed and under construction in each State and Territory.

NEW HOUSES: NUMBER. (Including Owner-built Houses.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
COMMENCED.									
1954–55	.. 24,348	22,674	7,784	7,190	8,575	2,867	249	640	74,327
1955–56	.. 23,506	21,245	7,173	8,377	6,336	2,490	341	499	69,967
1956–57	.. 23,477	19,649	7,572	6,832	5,565	2,591	251	509	66,446
1957–58	.. 24,177	21,933	7,050	6,951	5,328	2,378	311	1,139	69,267
1958–59	.. 26,631	22,443	8,050	8,125	5,242	2,563	334	1,165	74,503
COMPLETED.									
1954–55	.. 28,882	21,839	7,925	7,323	8,792	2,480	199	398	79,838
1955–56	.. 26,369	22,652	7,396	7,721	7,760	2,721	312	605	75,536
1956–57	.. 22,267	20,185	7,217	7,193	5,030	2,759	328	561	65,340
1957–58	.. 25,114	21,367	7,357	7,606	6,196	2,566	275	698	71,179
1958–59	.. 28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797
UNDER CONSTRUCTION AT END OF YEAR.									
1954–55	.. 20,136	19,827	3,329	5,602	5,715	2,536	211	691	58,047
1955–56	.. 17,273	18,399	3,106	6,252	4,284	2,305	240	585	52,444
1956–57	.. 18,483	17,863	3,461	5,854	4,819	2,137	163	533	53,313
1957–58	.. 17,546	18,429	3,154	5,199	3,951	1,949	199	974	51,401
1958–59	.. 16,082	16,543	2,948	5,181	3,347	1,935	177	894	47,107

(a) Includes flats.

(ii) *Commenced, 1954-55 to 1958-59.* The number of new houses commenced in each State and Territory by contractors and owner-builders is shown in the following table.

NEW HOUSES COMMENCED: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
CONTRACT-BUILT. (b)									
1954-55 ..	15,049	14,543	6,075	5,386	5,764	1,636	221	600	49,274
1955-56 ..	13,812	13,154	5,469	6,303	4,489	1,342	283	410	45,262
1956-57 ..	14,607	12,371	6,006	5,053	4,455	1,465	177	408	44,542
1957-58 ..	15,729	15,654	5,559	5,523	4,284	1,291	227	975	49,242
1958-59 ..	18,582	17,188	6,387	6,873	4,231	1,508	257	993	56,019
OWNER-BUILT.									
1954-55 ..	9,299	8,131	1,709	1,804	2,811	1,231	28	40	25,053
1955-56 ..	9,694	8,091	1,704	2,074	1,847	1,148	58	89	24,705
1956-57 ..	8,870	7,278	1,566	1,779	1,110	1,126	74	101	21,904
1957-58 ..	8,448	6,279	1,491	1,428	1,044	1,087	84	164	20,025
1958-59 ..	8,049	5,255	1,613	1,252	1,011	1,055	77	172	18,484
TOTAL.									
1954-55 ..	24,348	22,674	7,784	7,190	8,575	2,867	249	640	74,327
1955-56 ..	23,506	21,245	7,173	8,377	6,336	2,490	341	499	69,967
1956-57 ..	23,477	19,649	7,572	6,832	5,565	2,591	251	509	66,446
1957-58 ..	24,177	21,933	7,050	6,951	5,328	2,378	311	1,139	69,267
1958-59 ..	26,631	22,443	8,000	8,125	5,242	2,563	334	1,165	74,503

(a) Includes flats.

(b) Includes operations of Government Authorities.

(iii) *Completed.* (a) 1954-55 to 1958-59. The following table shows the number of new houses completed in each State and Territory by contractors and owner-builders.

NEW HOUSES COMPLETED: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
CONTRACT-BUILT. (b)									
1954-55 ..	16,658	14,450	6,419	5,672	5,766	1,504	174	369	51,012
1955-56 ..	15,085	14,390	5,806	5,951	5,370	1,559	229	575	48,995
1956-57 ..	13,657	13,159	5,649	5,491	3,537	1,460	262	505	43,720
1957-58 ..	16,186	14,630	5,830	5,733	4,921	1,449	201	614	49,564
1958-59 ..	18,111	17,444	6,411	6,452	4,337	1,429	270	1,105	55,559
OWNER-BUILT.									
1954-55 ..	12,224	9,389	1,506	1,651	3,026	976	25	29	28,826
1955-56 ..	11,284	8,262	1,590	1,770	2,390	1,162	53	30	26,541
1956-57 ..	8,610	7,026	1,568	1,702	1,493	1,299	66	56	21,820
1957-58 ..	8,928	6,737	1,527	1,873	1,275	1,117	74	84	21,615
1958-59 ..	9,984	6,885	1,795	1,691	1,509	1,148	86	140	23,238
TOTAL.									
1954-55 ..	28,882	23,839	7,925	7,323	8,792	2,480	199	398	79,838
1955-56 ..	26,369	22,652	7,396	7,721	7,760	2,721	312	605	75,536
1956-57 ..	22,267	20,185	7,217	7,193	5,030	2,759	328	561	65,540
1957-58 ..	25,114	21,367	7,357	7,606	6,196	2,566	275	698	71,179
1958-59 ..	28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797

(a) Includes flats.

(b) Includes operations of Government Authorities.

(b) *Material of Outer Walls, 1958-59.* The following table shows the number of new houses completed in each State and Territory during 1958-59, classified according to the material of their outer walls.

NEW HOUSES COMPLETED: NUMBER, 1958-59.
(Including Owner-built Houses.)

Material of Outer Walls.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
Brick, Brick Veneer, Concrete and Stone ..	5,740	10,400	792	6,903	3,637	674	104	1,193	29,443
Wood (Weatherboard, etc.) ..	9,066	11,996	5,609	117	46	1,807	1	48	28,690
Fibro Cement	13,269	1,417	1,709	1,109	2,157	96	248	4	20,009
Other	20	516	96	14	6	..	3	..	653
Total	28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797

(a) Includes flats.

(c) *Material of Outer Walls, 1954-55 to 1958-59.* The following table shows the number of new houses completed in Australia, classified according to the material of their outer walls.

NEW HOUSES COMPLETED: NUMBER, AUSTRALIA.
(Including Owner-built Houses.)

Material of Outer Walls.	1954-55. (a)	1955-56. (a)	1956-57. (a)	1957-58. (a)	1958-59. (a)
Brick, Brick Veneer, Concrete and Stone ..	23,901	23,523	21,956	25,876	29,443
Wood (Weatherboard, etc.)	31,050	29,389	25,670	26,854	28,690
Fibro Cement	24,501	22,071	17,408	17,864	20,009
Other	386	553	506	585	655
Total	79,838	75,536	65,540	71,179	78,797

(a) Includes Northern Territory flats.

3. **New Flats.**—The figures in the foregoing tables, except those for the Northern Territory, do not include particulars of new flats. The summary below shows the number of new flats commenced, completed and under construction in each State and Territory for the years 1954-55 to 1958-59. It should be noted: (i) that the figures are additional to the numbers of houses shown in other tables, (ii) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, and (iii) that new flats only are included, i.e., the conversions of old buildings into flats are omitted, (iv) "home units" are included as flats.

NEW FLATS: NUMBER.
(Individual Flats.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
COMMENCED.									
1954-55 ..	782	1,183	278	72	380	85	(a)	130	2,910
1955-56 ..	879	715	215	131	353	34	(a)	326	2,653
1956-57 ..	844	1,110	280	295	153	69	(a)	260	3,011
1957-58 ..	1,668	1,283	295	499	234	85	(a)	16	4,080
1958-59 ..	2,855	1,826	887	751	229	206	(a)	430	7,184
COMPLETED.									
1954-55 ..	701	781	309	105	316	48	(a)	12	2,272
1955-56 ..	776	1,273	200	86	584	49	(a)	..	2,968
1956-57 ..	861	897	174	230	365	105	(a)	264	2,896
1957-58 ..	1,331	1,104	331	372	171	41	(a)	56	3,406
1958-59 ..	1,935	1,434	651	640	212	131	(a)	358	5,361
UNDER CONSTRUCTION AT END OF YEAR.									
1954-55 ..	739	1,137	92	82	538	85	(a)	146	2,819
1955-56 ..	830	579	107	121	312	70	(a)	472	2,491
1956-57 ..	765	792	213	184	100	34	(a)	468	2,556
1957-58 ..	1,094	971	177	311	163	78	(a)	428	3,222
1958-59 ..	2,021	1,363	413	422	180	153	(a)	500	5,052

(a) Not available for publication. Included with houses.

4. Value of New Buildings.—(i) *Commenced, Completed and Under Construction, 1954-55 to 1958-59.* The following table summarizes the values of all new buildings commenced, completed and under construction in each State and Territory.

NEW BUILDINGS: VALUE.
(Including Estimated Value of Owner-built Houses.)
(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
COMMENCED.									
1954-55 ..	121,351	102,693	32,073	29,946	35,458	10,836	1,605	5,932	339,894
1955-56 ..	133,257	121,416	35,024	43,202	26,972	9,889	2,300	4,708	376,768
1956-57 ..	135,798	109,334	37,841	31,888	22,241	14,138	1,765	5,959	358,964
1957-58 ..	137,189	122,133	37,128	35,659	25,065	12,733	2,259	8,588	380,754
1958-59 ..	161,731	131,607	42,829	42,738	26,256	14,409	2,237	10,104	431,911
COMPLETED.									
1954-55 ..	110,694	98,932	28,318	27,081	34,096	10,649	1,653	2,943	314,366
1955-56 ..	124,138	111,594	30,519	33,717	33,678	12,798	1,935	4,287	352,666
1956-57 ..	133,094	114,830	35,383	33,997	23,424	12,609	2,285	5,940	361,562
1957-58 ..	169,240	131,756	38,043	38,047	27,262	12,840	2,110	5,841	425,139
1958-59 ..	159,841	137,437	45,000	44,394	30,262	13,450	2,588	10,999	443,971
UNDER CONSTRUCTION AT END OF YEAR.									
1954-55 ..	117,498	112,055	23,446	26,854	29,102	12,399	1,573	10,643	333,570
1955-56 ..	132,693	128,525	28,210	36,996	25,550	9,864	1,967	11,240	375,045
1956-57 ..	138,792	127,943	31,332	36,792	26,217	12,085	1,555	11,520	386,236
1957-58 ..	113,548	122,750	30,968	35,337	24,587	11,946	1,745	14,589	355,470
1958-59 ..	119,473	120,179	29,709	34,104	21,285	13,053	1,721	13,929	353,453

(ii) *Completed, 1958-59.* The following table shows the value of all new buildings completed in each State and Territory during 1958-59, according to the kind of building. It should be remembered that all values shown exclude the value of land and represent the estimated value of buildings on completion.

NEW BUILDINGS COMPLETED: VALUE, 1958-59.
(Including Estimated Value of Owner-built Houses.)
(£'000.)

Kind of Building.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Houses—									
Brick, Brick									
Veneer, Con-									
crete and									
Stone ..	25,631	40,518	2,922	23,004	12,105	2,566	469	5,972	113,187
Wood (Weath-									
erboard, etc.)	28,276	35,593	15,803	374	121	4,928	1,038	220	{ 85,306
Fibro Cement	33,214	3,266	3,590	2,850	4,966	155		..	{ 49,088
Other ..	57	1,581	255	32	13	..	9	..	{ 1,947
Total, Houses	87,178	80,958	22,570	26,260	17,205	7,649	(a) 1,516	6,192	249,528
Flats ..	5,104	3,814	1,197	1,558	420	344	(b)	1,709	14,146
Hotels, Guest									
Houses, etc. ..	2,849	1,292	1,653	797	(c)	85	368	(c)	7,204
Shops ..	6,688	4,761	1,667	1,404	684	402	117	102	15,825
Factories ..	16,750	16,096	2,849	2,035	1,396	986	99	426	40,637
Business Premises—									
Office ..	9,402	8,683	3,287	1,075	1,192	(c)	(c)	1,262	25,450
Other ..	7,595	5,237	3,202	2,309	1,213	706	90	106	20,458
Educational ..	10,823	4,495	3,215	2,732	2,292	1,019	151	842	25,569
Religious ..	1,923	2,096	581	563	(c)	(c)	..	..	{ 5,994
Health ..	4,378	3,993	1,764	4,389	3,562	690	(c)	88	{ 18,841
Entertainment									
and Recreation	4,459	2,120	739	501	908	149	(c)	(c)	8,975
Miscellaneous ..	2,692	3,892	2,276	771	689	690	170	164	11,344
Total, Other									
Buildings	72,663	56,479	22,430	18,134	13,057	5,801	1,072	4,807	194,443
Total, New	159,841	137,437	45,000	44,394	30,262	13,450	2,588	10,999	443,971

(a) Includes flats.

(b) Included with houses.

(c) Not available for publication.

(iii) *Completed, 1954-55 to 1958-59.* The following table shows the value of all new buildings completed in Australia.

NEW BUILDINGS COMPLETED: VALUE.
(Including Estimated Value of Owner-built Houses.)
(£'000.)

Kind of Building.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Houses—					
Brick, Brick Veneer, Concrete and Stone ..	82,917	86,336	84,505	98,131	113,187
Wood (Weatherboard, etc.)	79,100	80,473	74,361	79,631	85,306
Fibro Cement	54,141	51,184	42,286	43,836	49,088
Other	1,013	1,443	1,339	1,662	1,947
<i>Total, Houses</i>	<i>217,171</i>	<i>219,436</i>	<i>202,491</i>	<i>223,260</i>	<i>249,528</i>
Flats	4,944	6,824	7,245	8,238	14,146
Hotels, Guest Houses, etc.	3,683	6,309	8,239	6,768	7,204
Shops	10,724	12,604	12,527	13,588	15,825
Factories	24,606	38,234	43,253	59,883	40,637
Business Premises—					
Office		8,841	16,827	33,678	25,450
Other		14,633	18,863	17,302	20,458
Educational		15,716	14,840	19,630	25,569
Religious		2,409	3,507	4,825	5,994
Health		10,058	13,113	19,889	18,841
Entertainment and Recreation		4,104	9,481	8,815	8,975
Miscellaneous		13,498	11,176	9,263	11,344
<i>Total, Other Buildings</i>	<i>97,195</i>	<i>133,230</i>	<i>159,071</i>	<i>201,879</i>	<i>194,443</i>
Total, New Buildings	314,366	352,666	361,562	425,139	443,971

5. **Persons engaged in New Building.**—(i) *At 30th June, 1959.* The following table shows the number of contractors, sub-contractors and wage earners engaged on jobs carried out by builders of new buildings at 30th June, 1959, and also shows the numbers of these persons engaged in the main building occupations as at that date.

PERSONS ENGAGED ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, 30th JUNE, 1959.
(Excluding Persons working on Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors (a)	3,070	2,473	2,091	697	625	510	50	124	9,640
Sub-contractors (a)	5,789	4,627	2,191	2,300	1,301	583	80	334	17,205
Wage earners	27,422	25,526	16,409	9,639	7,166	4,217	271	2,442	93,092
Total	36,281	32,626	20,691	12,636	9,092	5,310	401	2,900	119,937
Carpenters	13,978	12,921	9,448	3,688	2,925	2,504	182	935	46,581
Bricklayers	3,257	3,120	1,395	1,923	1,074	392	34	252	11,447
Painters	3,239	3,099	1,750	1,058	867	406	28	362	10,809
Electricians	1,935	1,461	1,105	575	463	194	20	158	5,911
Plumbers	3,351	2,735	1,653	981	832	270	39	214	10,075
Builders' Labourers	5,604	4,662	3,397	2,207	1,579	1,016	54	452	18,971
Other	4,917	4,628	1,943	2,204	1,352	528	44	527	16,143
Total	36,281	32,626	20,691	12,636	9,092	5,310	401	2,900	119,937

(a) Actually working on jobs.

(ii) *Summary, 1955 to 1959.* The number of persons (including contractors and sub-contractors actually working on jobs) engaged in each State and Territory on jobs carried out by builders of new buildings is shown in the following table.

PERSONS ENGAGED ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS.

(Excluding Persons working on Owner-built Houses.)

At 30th June—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1955	34,981	32,396	18,655	10,876	10,437	5,904	425	1,913	115,587
1956 (a) ..	37,300	32,306	19,427	11,258	9,080	4,620	464	1,957	116,412
1957 (b) ..	37,337	30,543	18,425	11,036	9,439	4,684	384	2,004	113,852
1958	32,673	31,634	17,886	10,687	8,924	4,460	370	2,982	109,616
1959	36,281	32,626	20,691	12,636	9,092	5,310	401	2,900	119,937

(a) At 29th June.

(b) At 28th June.

CHAPTER XII.

LABOUR, WAGES AND PRICES.

NOTE.—Reference is made in this chapter to retail and wholesale price indexes. For particulars of the Export Price Index, see Chapter XIII., § 16, and of the Farm Production Price Index, see Chapter XXX., § 2.

A. RETAIL PRICES AND PRICE INDEXES.

§ 1. General.

The information on retail prices and price indexes presented in this chapter is extracted from the annual *Labour Report*. For a full explanation of methods adopted and an analysis of problems involved see the detailed reference in Chapter I. of *Labour Report* No. 46, 1958.

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 were collected by the Commonwealth Statistician, and in some cases have been recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 for each of the six capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year from 1914 to 1922 for each of the six capital cities. The list of items priced for index purposes is published in *Labour Report* No. 46.

§ 2. Previous Retail Price Indexes.

1. General.—Four series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1954. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were—

- (i) *The "A" Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June, 1938.
- (ii) *The "B" Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December Quarter, 1953. It was the food and rent constituent of the "C" Series Index and was designed to replace the "A" Series Index for general statistical purposes.
- (iii) *The "C" Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking and some other miscellaneous items) was first compiled in 1921 and published at quarterly intervals from June Quarter, 1922. It was used by the Commonwealth Court of Conciliation and Arbitration for purposes of quarterly wage adjustments from May, 1934, to August, 1953. Some State tribunals use or consider it in their proceedings. Its publication in mimeograph each quarter will be continued for the present in the customary form and on its customary basis. For general statistical purposes it has been replaced by the Interim Retail Price Index (1952–53 base year) described at length in a Statistical Bulletin published on 24th March, 1954, and briefly in the following section of this chapter.
- (iv) *The "D" Series Index*, derived by combining the "A" and "C" Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May, 1933, to May, 1934, and then discontinued.

Of the four retail price indexes described above, only the "C" Series is now compiled. The new Interim Index will continue in its present form until the components of certain groups are finalized.

2. The "Court" Index.—In 1937, the Commonwealth Court of Conciliation and Arbitration introduced a "Court" Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court the "Court" Index ceased to be issued by the Industrial Registrar as at December Quarter, 1953. "Court" index numbers were an arithmetical conversion of the "C" Series Index.

§ 3. The Interim Retail Price Index (1952-53 Base Year).

1. **Origin of the Interim Retail Price Index (1952-53 Base Year).**—The list of component items and the weighting pattern of the "C" Series Retail Price Index were first adopted in 1921 but were reviewed by Conference of Statisticians in 1936. (*See Labour Report* No. 41, 1952, page 33.)

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and the pattern of expenditure. This rendered it impracticable either to produce a new index or to revise the old one on any basis that would render the index more representative, than it already was, of the changing pattern.

When commodity rationing had virtually ceased in the latter part of 1948, action was taken by the Statistician to collect price data of about 100 additional items and to gather information as to current consumption and expenditure patterns. By the middle of 1949 a considerable number of new price series were coming into being and the body of data available as to expenditure and consumption (in the post-rationing period) was beginning to indicate something of the new weighting pattern likely to be appropriate for post-war review of the components and construction of the "C" Series Index.

There supervened in the next two years conditions which caused wide price dispersion, a very rapid rise in prices and a new sequence of changes in consumption and the pattern of wage earner expenditure. Under these conditions it was not possible to devise any new weighting pattern for the years 1949-50, 1950-51 and 1951-52 likely to be better suited to the index or more continuously representative of conditions then current than was the existing "C" Series Index on the 1936 revision. Conference of Statisticians therefore deferred revision of the weighting system and component items of the "C" Series Index until it was advised by the Acting Commonwealth Statistician in June, 1953 (a) that although the aggregate "C" Series Index (as verified by supplementary indexes) was still reasonably reliable for current use, some of the component groups (more particularly food and miscellaneous) were not satisfactory individually; and (b) that the time had arrived either to produce a new index or to reconstruct the "C" Series Index extensively.

The Interim Retail Price Index has been compiled pursuant to Resolution 13 of Conference of Statisticians in June, 1953, reading—

"13. Retail Price Indexes—

- (a) That in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period, it is undesirable to make a general revision of the list of items and weighting system of the "C" Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes.
- (b) That an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure.
- (c) That, having regard to the complexities of the problem and the limit of staff resources available, such interim index relate only to each capital city and to the six capital cities combined.
- (d) That attention be drawn again to the statement already published that the "C" Series Retail Price Index cannot measure changes in relative retail price levels as between capital cities consistently with its main purpose of measuring periodic changes in retail price levels for each city.
- (e) That the problem of measuring comparative retail price levels as between cities at any point of time differs in principle from the problem of measuring periodic variations in price level in an individual city."

The Interim Retail Price Index (1952-53 base year) is used as the current retail price index in statistical publications of the Commonwealth Statistician for general statistical purposes. It relates only to six capital cities of Australia because it is not practicable with existing staff resources to collect price data for the greatly enlarged list of items for 27 other cities and towns. These continue to be covered as to the less extensive list of items used for the "C" Series Index.

At times appreciable disparities appear in the movement of the respective indexes for individual cities from quarter to quarter. The Interim Index, being based on recent weights and an extended list of items, is the more representative measure of quarterly retail price variations.

2. **Definition of the Interim Retail Price Index.**—This index provides the interim results of researches designed to measure retail price variations (with 1952-53 = 100 as base year) on the basis of—

- (a) a current pattern of wage earner expenditure using recent consumption weights for foods and recent expenditure weights for combining groups of items into the aggregate index;
- (b) a wider range of commodities and services than that covered by any existing price index in order to provide greater representativeness; and
- (c) individual city weights for such items as electricity, gas and fares.

The components and weighting of the Interim Retail Price Index are being reviewed in the light of data derived from the census of retail sales as to consumer expenditure on various kinds of goods, estimates of consumer expenditure on services relevant to construction of a retail price index of this type and data as to rents and housing derived from the Census of 30th June, 1954 and additional special surveys. It is proposed to cast the index into final form as soon as possible and this may entail some revision in the index.

3. **Differences between the Structure of the Interim Retail Price Index and that of the "C" Series Retail Price Index.**—The main differences between the structure of the Interim Retail Price Index and that of the "C" Series Retail Price Index are (a) the group weights and item weights of the Interim Index relate broadly to the consumption pattern 1950-53, while those of the "C" Series Index relate to pre-war years; and (b) the Interim Index includes a large number of items not included in the "C" Series Index.

A full list of the items used in the Interim Index is shown on pages 9-12 of *Labour Report* No. 46. The changes in structure of each group of items as adopted for the Interim Retail Price Index are summarized below.

(i) **Food Group.**—The weights of some of the main items (e.g., milk, eggs, meat, potatoes and flour) in the Interim Index are substantially different from those of the "C" Series Index. Twenty-four new items extend the group coverage over a wider field. The total number of items in the Food Group of the Interim Index is 60 as compared with 38 in the "C" Series Index. The principal new items are lamb, packaged breakfast foods, biscuits, ice cream, packet cheese, honey, sandwich spreads, coffee, cocoa, soft drinks and certain types of confectionery.

(ii) **Clothing and Drapery Group.**—In the Interim Index, 17 new items have been added to the Clothing and Drapery Group, and 25 items each formerly represented by one type of article are now each represented by two or more types. Consequential adjustments have been made in weights of individual items. The principal new items added to this group are:—sports coat, sports trousers, cardigan (and other types of knitted wear), overalls, piece-goods (rayon, cotton and woollen) and knitting wool.

(iii) **Rent Group.**—Only minor changes have been made in the Rent Group. Available data indicate (a) that, in general, very few new houses have been built by private owners for renting in the post-war years; (b) that in some cities considerable numbers of new government houses have been built for renting or occupancy on a quasi-rental basis; and (c) that there has been a substantial increase in the numbers of owner-occupied houses, including new instalment-purchase or quasi-instalment-purchase houses under governmental and private housing schemes. In recent years the difficulty of obtaining data suitable for the housing component of a price index has therefore intensified. The Census of 1954 showed that a very rapid diminution had occurred since 1947 in both the numbers and proportions in privately rented houses. Recent supplementary surveys indicate a continuation of this trend in the six capital cities. Further study is therefore being given to the hitherto intractable problems associated with measuring at quarterly intervals "housing price" variations in a form suitable for use in a retail index in respect of owner-occupied houses, instalment-purchase houses, and houses occupied under the various types of governmental housing schemes.

(iv) **Other Groups.**—Six new sub-groups are included in the Interim Index, comprising 75 items as compared with 32 in the "C" Series Index. The principal new items are garden tools, floor coverings, shaving cream, toilet soap, etc., patent medicines, baby foods, haircuts, dry cleaning, shoe repairs, postage, etc. Necessary adjustments have been made to bring the group weight into conformity with recent expenditure and consumption patterns. The weight of this group is much greater than it was in the "C" Series Index.

(v) **Group Weights.**—The group weights in the new Interim Index have been brought into general conformity with the estimated group distribution of wage earner household expenditure in recent years over the field covered. In some cases the weights are putative weights assessed on available data and are subject to some revision.

In the year 1952-53 the ratio of the individual group "aggregate expenditure" to the "aggregate expenditure" of the whole index for the six capital cities combined was as follows:—

Group.	"C" Series Retail Price Index.	Interim Retail Price Index.
	Per cent.	Per cent.
Food	41.0	37.1
Clothing and Drapery	33.0	26.8
Rent	11.3	9.0
Other Groups	4.5	4.6 Fuel and Light
	5.3	4.6 Household Sundries
	2.8	2.5 Certain Repairs and Services
	2.1	3.0 Cinema, Radio, Newspapers
		6.6 Rail, Tram and Bus Fares
		5.8 Tobacco and Cigarettes
	100.0	100.0

In the Interim Index common weights are adopted for all groups and items in the index for each city except in respect of fares, gas, electricity and some minor items. The resultant indexes measure price movement from period to period for each city separately. While they indicate *degree* of price movement from time to time for respective cities, they do not indicate the *relative* level of prices (or level of living costs) in each city. For that reason the Interim Index Number for each city in the base year 1952-53 is 100.

4. Comparison of Trends of the Interim Retail Price Index with Trends of the "C" Series Retail Price Index.—The following table shows for each of the years 1952-53 to 1958-59 and for each quarter from March Quarter, 1957 to December Quarter, 1959 the Interim Index for the six capital cities combined, with the year 1952-53 as base = 100, in comparison with the "C" Series Index arithmetically converted to the same base:—

Period.	Six Capital Cities: Weighted Average. (Base: Year 1952-53 = 100.)			
	"C" Series Index.		Interim Index.	
Year ended June—			A	B
1953	100.0		100.0	100.0
1954	102.8		102.2	102.5
1955	103.7		103.7	103.6
	A	B		
1956	107.5	108.8	107.0	108.0
1957	112.2	114.1	113.0	114.3
1958	114.7	114.3	115.7	115.6
1959	117.5	117.2	118.4	118.5
Quarter ended—	A	B		
1957—March	112.6	112.8	113.5	113.7
June	113.5	113.8	114.5	114.8
September	114.0	113.8	115.1	115.1
December	114.0	113.5	115.1	114.9
1958—March	115.0	114.7	115.9	115.8
June	115.9	115.3	116.7	116.5
September	116.3	115.7	117.1	116.9
December	117.3	117.0	118.3	118.3
1959—March	117.7	117.8	118.8	119.0
June	118.6	118.4	119.7	119.7
September	119.7	119.6	120.4	120.5
December	121.0	120.8	121.4	121.5

NOTE.—Indexes in columns "A" exclude, and those in columns "B" include, potatoes and onions. (See para. 5 on next page.)

The figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid the distortion that would occur in rounding off the figures to the nearest whole number. Price indexes cannot measure aggregate price variations with an accuracy of the order of one-tenth of 1 per cent.

With changing conditions significant divergencies may occur between the movements shown by a retail price index (such as the "C" Series Index) constructed on pre-war weights and a comparatively limited range of major items and a retail price index (such as the Interim Index) constructed on 1950-53 weights and a broader list of items.

Due regard should be paid to the fact that a composite price index is necessarily an approximate summary which combines into one aggregate price variations of many items. Any more rigid use of the index for specific purposes is the responsibility of the bodies or persons using the indexes.

5. Compilation of Indexes Including and Excluding Price Movement of Potatoes and Onions.—Abnormally large seasonal fluctuations in prices of potatoes and onions had a major effect (first upwards and then downwards) on the movement of the price indexes in most cities from September Quarter, 1956 to March Quarter, 1957. The fluctuations also caused highly disparate movements in the aggregate indexes as between cities. In order to provide an indication of the trend of the indexes apart from these abnormally large seasonal fluctuations, index numbers excluding the effects of price movements of potatoes and onions are calculated for comparison with those which include those items.

The Interim Retail Price Index is calculated both inclusive and exclusive of potatoes and onions as from the base period 1952-53. For the "C" Series Retail Price Index, index numbers have been calculated excluding the price movement of potatoes and onions as from (and including) September Quarter, 1955.

§ 4. Tabular Statements of Retail Price Index Numbers.

1. General.—Information on retail price movements is published as follows:—

(i) *Monthly.* The *Monthly Review of Business Statistics* contains annual and quarterly index numbers to the latest available date. The *Digest of Current Economic Statistics* contains annual and quarterly index numbers for the Interim Retail Price Index.

(ii) *Quarterly.* Statements are issued about three weeks after the end of each quarter relating to the Interim and the "C" Series Retail Price Indexes respectively for that quarter and immediately preceding quarters. The *Quarterly Summary of Australian Statistics* contains annual and quarterly index numbers to the latest available date. This publication also contains certain average prices of items of food and groceries for the latest available quarter.

(iii) *Annually.* In addition to information in this publication the annual *Labour Report* contains index numbers for past years and the quarterly results for recent years. Certain average prices for the latest year of items of food and groceries are also published in the *Labour Report*.

2. The "C" Series Retail Price Index.—A table of "C" Series index numbers for the weighted average of the six capital cities combined, together with index numbers for each of the four main groups of items in the "C" Series Index, for each year from 1914 to 1959 is shown on page 411. Detailed tables were last published in *Labour Report* No. 41, 1952, pages 19-27.

3. The Interim Retail Price Index.—On the following pages are published:—

(i) the Interim Retail Price Index numbers for each of the years ended June from 1953 to 1959, and for each quarter of the calendar year 1959 for each capital city and for the six capital cities combined, together with separate indexes for each of the four groups of items (pages 408-9).

(ii) the Interim Retail Price Index numbers for each of the years ended June from 1953 to 1959, and for each quarter during the period March Quarter, 1957 to December Quarter, 1959, for the weighted average of the six capital cities combined, together with separate indexes for each of the four groups of items (page 409).

INTERIM RETAIL PRICE INDEX NUMBERS.

(Base of each Index: Year 1952-53 = 100.)

NOTE.—The index numbers hereunder are designed to measure aggregate variations in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities nor comparative costs of groups of items.

City.	Year ended June—							1959.			
	1953.	1954.	1955.	1956.	1957.	1958.	1959.	Mar. Qtr.	June, Qtr.	Sept. Qtr.	Dec. Qtr.

GROUP I.—FOOD (EXCLUDING POTATOES AND ONIONS).(a)

Sydney ..	100.0	101.5	104.0	106.7	111.4	113.6	114.1	114.2	114.9	116.1	117.8
Melbourne ..	100.0	103.8	104.7	109.9	114.2	114.9	116.5	116.7	118.7	119.1	119.1
Brisbane ..	100.0	102.2	103.4	104.7	108.4	113.3	118.4	119.6	120.2	121.4	121.8
Adelaide ..	100.0	102.5	106.3	108.7	111.1	112.2	118.0	118.4	120.7	121.2	120.3
Perth ..	100.0	106.3	109.4	111.0	115.8	115.0	116.0	115.6	117.9	118.0	116.2
Hobart ..	100.0	106.9	106.7	111.3	115.3	114.7	116.4	116.3	116.7	116.7	116.0
Six Capitals ^b	100.0	102.8	104.8	108.1	112.4	114.0	115.8	116.1	117.4	118.2	118.7

GROUP I.—FOOD (INCLUDING POTATOES AND ONIONS).

Sydney ..	100.0	102.4	103.6	109.0	114.4	112.9	113.7	114.3	114.6	115.8	117.2
Melbourne ..	100.0	104.6	104.3	112.9	118.6	115.1	117.0	118.0	119.4	119.9	120.2
Brisbane ..	100.0	104.1	104.2	108.1	112.1	113.4	119.0	120.9	120.6	122.2	121.9
Adelaide ..	100.0	103.5	106.2	111.1	114.9	111.9	118.0	119.1	120.5	121.1	120.8
Perth ..	100.0	106.3	109.5	111.3	116.8	115.4	116.4	116.1	118.5	119.3	117.1
Hobart ..	100.0	107.7	106.8	113.6	118.3	114.4	116.5	117.5	117.1	117.4	116.9
Six Capitals ^b	100.0	103.7	104.6	110.6	115.8	113.7	115.9	116.7	117.6	118.5	118.9

GROUP II.—CLOTHING AND DRAPERY.

Sydney ..	100.0	101.7	102.3	103.0	105.9	108.8	110.0	109.8	110.3	110.6	112.0
Melbourne ..	100.0	101.3	102.2	103.9	106.4	110.5	111.6	111.4	111.8	112.1	113.5
Brisbane ..	100.0	101.7	102.9	103.3	105.8	109.2	110.9	110.7	111.5	112.1	113.7
Adelaide ..	100.0	102.2	102.9	102.9	103.9	107.1	107.9	107.6	107.8	108.7	109.8
Perth ..	100.0	100.9	101.6	103.0	105.4	108.5	110.3	110.3	110.6	111.0	111.6
Hobart ..	100.0	102.6	103.1	104.6	107.8	110.6	112.1	112.2	112.1	112.8	113.7
Six Capitals ^b	100.0	101.6	102.4	103.3	105.8	109.2	110.4	110.3	110.7	111.1	112.4

GROUP III.—RENT (c) (4 AND 5 ROOMED HOUSES).

Sydney ..	100.0	107.7	109.5	111.3	113.5	118.8	124.8	125.5	126.4	127.4	128.4
Melbourne ..	100.0	100.8	102.0	111.9	123.3	127.1	133.6	134.8	136.3	139.5	143.1
Brisbane ..	100.0	102.9	105.2	107.0	111.0	120.8	141.9	142.2	144.8	146.3	147.3
Adelaide ..	100.0	102.7	105.6	114.9	124.8	134.6	144.9	145.7	146.2	148.1	150.4
Perth ..	100.0	110.8	149.6	159.1	169.2	176.2	183.9	184.5	185.4	186.7	188.3
Hobart ..	100.0	108.8	109.4	126.1	151.9	160.4	171.1	173.8	175.7	183.1	193.8
Six Capitals ^b	100.0	105.0	109.6	115.5	122.5	128.4	136.5	137.4	138.6	140.6	142.8

GROUP IV.—OTHER ITEMS.(d)

Sydney ..	100.0	100.5	100.9	103.6	121.5	124.8	125.7	125.7	126.3	126.4	127.2
Melbourne ..	100.0	100.9	101.3	109.6	116.4	117.7	125.9	127.8	128.3	128.7	129.6
Brisbane ..	100.0	103.0	104.5	110.1	117.9	120.0	124.8	125.8	126.2	127.0	128.4
Adelaide ..	100.0	99.3	99.9	103.7	107.9	111.2	113.0	113.3	113.5	117.5	119.1
Perth ..	100.0	100.8	101.9	106.4	113.7	115.8	116.9	117.1	117.3	117.7	120.2
Hobart ..	100.0	108.2	105.1	110.3	120.1	121.4	124.8	125.3	125.8	126.3	127.2
Six Capitals ^b	100.0	100.9	101.4	106.4	117.8	120.2	123.9	124.7	125.2	125.8	126.9

NOTE.—For footnotes see next page.

INTERIM RETAIL PRICE INDEX NUMBERS—*continued.*

(Base of each Index: Year 1952-53 = 100.)

City.	Year ended June—							1959.			
	1953.	1954.	1955.	1956.	1957.	1958.	1959.	Mar. Qtr.	June. Qtr.	Sept. Qtr.	Dec. Qtr.

ALL GROUPS (EXCLUDING POTATOES AND ONIONS).(a)

Sydney ..	100.0	101.9	103.2	105.3	113.0	116.0	117.2	117.3	117.9	118.6	119.9
Melbourne ..	100.0	102.1	102.9	108.4	113.5	115.5	119.3	119.9	121.0	121.6	122.6
Brisbane ..	100.0	102.3	103.7	105.9	110.3	114.5	119.9	120.7	121.4	122.4	123.4
Adelaide ..	100.0	101.6	103.6	106.3	109.5	112.6	116.4	116.6	117.6	119.2	119.8
Perth ..	100.0	103.9	109.5	112.6	117.9	119.7	121.6	121.6	122.7	123.1	123.3
Hobart ..	100.0	106.3	105.6	110.6	118.0	119.7	122.6	123.0	123.4	124.4	125.6
Six Capitals ^b	100.0	102.2	103.7	107.0	113.0	115.7	118.4	118.8	119.7	120.4	121.4

ALL GROUPS (INCLUDING POTATOES AND ONIONS).

Sydney ..	100.0	102.2	103.1	106.1	114.1	115.7	117.0	117.3	117.8	118.4	119.7
Melbourne ..	100.0	102.4	102.7	109.5	115.1	115.6	119.4	120.3	121.3	121.9	122.9
Brisbane ..	100.0	103.0	104.0	107.1	111.7	114.5	120.2	121.1	121.5	122.7	123.5
Adelaide ..	100.0	102.0	103.6	107.2	110.9	112.5	116.4	116.8	117.5	119.2	120.0
Perth ..	100.0	103.9	109.6	112.7	118.3	119.8	121.7	121.7	122.9	123.5	123.6
Hobart ..	100.0	106.6	105.6	111.5	119.1	119.5	122.6	123.4	123.5	124.6	125.9
Six Capitals ^b	100.0	102.5	103.6	108.0	114.3	115.6	118.5	119.0	119.7	120.5	121.5

(a) See para. 5 on page 407. (b) Weighted average. (c) Rent.—The rent index numbers shown in the table above and elsewhere in this publication measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. They are "price" indexes in the strict sense, i.e., they are designed to measure only the "price" element in rent fluctuations. Rentals of new tenanted houses completed since the end of the 1939-45 war are not taken into account. (d) A group of items under the following headings—Electricity, Gas and Firewood; Household Sundries; Services; Cinema Admission, Radio Licence and Newspapers; Fares; and Tobacco and Cigarettes.

INTERIM RETAIL PRICE INDEX—GROUP INDEXES.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(Base: Year 1952-53 = 100.)

Period.	Food.(a)		Clothing and Drapery.	Rent.(b)	Other Items.	Aggregate All Groups.(a)	
	A	B				A	B
Year ended June—							
1953	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1954	102.8	103.7	101.6	105.0	100.9	102.2	102.5
1955	104.8	104.6	102.4	109.6	101.4	103.7	103.6
1956	108.1	110.6	103.3	115.5	106.4	107.0	108.0
1957	112.4	115.8	105.8	122.5	117.8	113.0	114.3
1958	114.0	113.7	109.2	128.4	120.2	115.7	115.6
1959	115.8	115.9	110.4	136.5	123.9	118.4	118.5
Quarter ended—							
1957—March ..	112.6	113.2	106.3	123.1	118.5	113.5	113.7
June	113.3	114.2	107.9	124.6	119.3	114.5	114.8
September ..	113.7	113.8	108.4	126.1	119.9	115.1	115.1
December ..	112.8	112.4	109.1	127.0	120.1	115.1	114.9
1958—March ..	114.6	114.4	109.3	128.2	120.2	115.9	115.8
June	114.9	114.4	110.2	132.2	120.4	116.7	116.5
September ..	114.7	114.2	110.3	134.2	121.4	117.1	116.9
December ..	115.1	115.1	110.5	136.0	124.5	118.3	118.3
1959—March ..	116.1	116.7	110.3	137.4	124.7	118.8	119.0
June	117.4	117.6	110.7	138.6	125.2	119.7	119.7
September ..	118.2	118.5	111.1	140.6	125.8	120.4	120.5
December ..	118.7	118.9	112.4	142.8	126.9	121.4	121.5

(a) The index in column "A" excludes, and that in column "B" includes, potatoes and onions. See para. 5 on page 407. (b) See note (c) to table above.

§ 5. The "C" Series Retail Price Index: 1914-1959.

1. **Construction.**—Full particulars relating to the construction, items, weights and methods of tabulation of the "C" Series Retail Price Index were last published in *Labour Report* No. 41, 1952, pages 10-18. Tabular statements of index numbers were shown on pages 19-27 and historical particulars of the index, and its relation to automatic basic wage variations prior to 12th September, 1953, on pages 32-42.

2. **Significant Dates.**—The following table furnishes index numbers for the six capital cities as a whole for certain significant dates since November, 1914—the earliest date for which this index is available.

"C" SERIES RETAIL PRICE INDEX NUMBERS.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(Base: Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

1914, November	..	..	..	687 (Beginning of 1914-18 War)
1918, November	..	..	..	905 (End of 1914-18 War)
1920, November	..	..	..	1,166 (Post-War peak)
1922, November	..	..	..	975 (Post-War trough)
1929, Year	..	..	..	1,033 (Pre-Depression peak)
1933, Year	..	..	..	804 (Depression trough)
1939, September Quarter	..	..	..	916 (Pre-1939-45 War)
1943, March Quarter	..	..	..	1,123 (Pre-Price Stabilization)
1943, June Quarter	..	..	..	1,143 (1939-45 War peak)
1945, September Quarter	..	..	..	1,126 (End of 1939-45 War)
1948, September Quarter	..	..	..	1,311
1950, September Quarter	..	..	..	1,572
1952, September Quarter	..	..	..	2,238
1953, September Quarter	..	..	..	2,321
1954, September Quarter	..	..	..	2,321
1959, September Quarter	..	..	..	..(a)2,707

(a) Excludes price movement of potatoes and onions. See para. 5 on page 407.

The index rose by approximately 32 per cent. during the 1914-18 War, and by a further 29 per cent. in the two post-war years (November, 1918 to November, 1920). From November, 1920 to November, 1922, there was a fall of 16 per cent. and the index remained relatively stable until the onset of the depression in 1929. During the four years of the depression 1929 to 1933 the index fell by 22 per cent., thereafter rising steadily until 1939 when it was nearly 14 per cent. above the level of 1933, and approximately at the level it had occupied at the date of the Armistice of 1918. Between the outbreak of war (September, 1939) and March, 1943 (pre-price stabilization) the index rose by approximately 23 per cent. to a level slightly below that reached at the height of the post-war boom in 1920. Compared with that for March Quarter, 1943, the index number at the close of the war was practically unchanged.

Immediately after the outbreak of the war, price control was established by the Government under Regulations dated 28th September, 1939, and a national policy of price stabilization was applied as from 12th April, 1943, backed by more stringent price control and price subsidies. The retail price level, as measured by the index, remained relatively steady throughout 1944 and 1945 at the level of March, 1943. This stabilized level was approximately 23 per cent. above that of 1939 and 63 per cent. above the level prevailing at the beginning of the 1914-18 War. After June Quarter, 1946, war-time controls, subsidies, etc., were progressively modified and by early 1949 had been virtually eliminated. In the latter part of 1950, export prices (especially for wool) rose very substantially. In December, 1950, the Commonwealth Court of Conciliation and Arbitration raised the basic wage by approximately 14 per cent. Concurrently, public works expenditure and private investment rose to very high levels.

This retail price index rose by 16 per cent. in the three years following the end of the 1939-45 War (i.e., to September Quarter, 1948) and by 77 per cent. in the next five years to September Quarter, 1953, and remained relatively stable at that level until December

Quarter, 1954. Since then the index has risen each year and by September Quarter, 1959, was approximately 17 per cent. higher than at September Quarter, 1954. This level was approximately 196 per cent. above that of 1939.

3. "C" Series Retail Price Index, Six Capital Cities, 1914 to 1959.—The movement in the various groups of the index and in the index as a whole for each year for which it has been compiled is shown in the following table for the six capital cities combined:—

**"C" SERIES RETAIL PRICE INDEX AND ITS "GROUP" INDEX NUMBERS(a)
FOR THE SIX CAPITAL CITIES COMBINED.**

(Base of Each Group: Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

Period.	Food and Groceries. (b)	Rent (4 and 5 Roomed Houses). (c)	Clothing.	Miscel- laneous.	Total "C" Series Index. (b)
1914 (d)	641	649	754	749	687
1915 (d)	842	659	792	786	782
1916 (d)	812	665	881	802	795
1917 (d)	836	685	992	882	847
1918 (d)	861	722	1,097	972	905
1919 (d)	1,026	768	1,238	1,036	1,022
1920 (d)	1,209	851	1,365	1,194	1,166
1921 (d)	950	877	1,246	1,010	1,013
1922 (d)	945	929	1,052	999	975
1923	1,009	950	1,045	999	1,003
1924	969	988	1,003	1,004	987
1925	998	1,008	991	992	997
1926	1,023	1,026	986	998	1,011
1927	1,000	1,030	975	1,008	1,002
1928	985	1,066	997	1,010	1,009
1929	1,044	1,073	996	1,007	1,033
1930	941	1,047	951	999	975
1931	826	901	853	973	873
1932	796	817	804	958	830
1933	751	804	787	950	804
1934	783	810	785	944	817
1935	806	839	783	946	832
1936	825	879	792	947	850
1937	851	912	811	960	873
1938	886	942	829	961	897
1939	927	965	841	962	920
1940	939	973	956	998	957
1941	947	976	1,118	1,060	1,008
1942	1,031	976	1,308	1,112	1,091
1943	1,037	975	1,440	1,160	1,131
1944	1,026	976	1,435	1,165	1,126
1945	1,034	975	1,425	1,161	1,126
1946	1,036	976	1,505	1,167	1,145
1947	1,100	977	1,566	1,199	1,188
1948	1,256	979	1,744	1,257	1,295
1949	1,394	982	1,997	1,338	1,415
1950	1,566	987	2,286	1,435	1,560
1951	2,041	1,009	2,749	1,679	1,883
1952	2,526	1,057	3,096	1,958	2,196
1953	2,641	1,138	3,223	2,053	2,302
1954	2,671	1,192	3,218	2,062	2,326
1955	2,811	1,226	3,237	2,081	2,393
1956	A 2,923 B 3,084	1,325	3,261	2,236	A 2,489 B 2,547
1957	2,973 2,971	1,380	3,357	2,372	2,567 2,565
1958	3,021 2,993	1,460	3,418	2,424	2,626 2,615
1959	3,116 3,111	1,536	3,455	2,481	2,696 2,694
1959—March Quarter	3,057 3,067	1,510	3,420	2,474	2,660 2,663
June "	3,096 3,086	1,524	3,440	2,473	2,681 2,677
September "	3,139 3,132	1,544	3,455	2,484	2,707 2,704
December "	3,170 3,160	1,567	3,504	2,492	2,735 2,732

(a) "Group" index numbers in the above table cannot be compared with each other in order to show the relative cost of Food and Groceries, Rent, Clothing or Miscellaneous requirements, since each "Group" has its own base = 1,000, namely, the weighted average cost for the six capital cities as a whole during the five-year period 1923-27. (b) The index in column "A" excludes, and that in column "B" includes, the price movement of potatoes and onions. See para. 5 on page 407. (c) See note (c) to table at top of page 409. (d) November.

§ 6. International Comparisons.

The following table shows the movement of retail prices in recent years in Australia and certain other countries.

RETAIL PRICE INDEX NUMBERS.

(FOOD, RENT, CLOTHING, MISCELLANEOUS HOUSEHOLD EXPENDITURE.)

(Base: September Quarter, 1939 = 100.)

Period.	Australia. (a)	United Kingdom.	Canada.	New Zealand.	Union of South Africa.	United States of America.
1939—						
September Quarter ..	100	100	100	100	100	100
1940—Year ..	105	119	105	104	104	100
1941— „ ..	110	128	111	108	109	105
1942— „ ..	119	129	116	111	118	116
1943— „ ..	124	128	117	114	126	123
1944— „ ..	123	129	118	116	130	125
1945— „ ..	123	131	119	118	133	127
1946— „ ..	125	131	123	119	135	138
		Base: 17.6.47 =100.(b)				
1947— „ ..	130	102	134	122	141	158
1948— „ ..	141	108	154	132	149	170
1949— „ ..	155	111	(c) 160	(d) 134	154	168
1950— „ ..	170	114	165	142	160	171
1951— „ ..	206	124	183	157	172	185
1952— „ ..	240	(c) 136	186	170	187	189
1953— „ ..	251	140	184	177	194	190
1954— „ ..	254	143	185	186	197	191
1955— „ ..	261	149	185	(c) 190	204	191
	A B					
1956— „ ..	272 278	(c) 157	188	197	207	193
1957— „ ..	280 280	162	194	201	213	200
1958— „ ..	287 286	167	199	210	221	205
1959— „ ..	295 294	168	201	218	(e)	207
1959—March Quarter ..	290 291	169	200	217	223	206
June „ ..	293 292	168	200	217	223	206
Sept. „ ..	296 295	167	201	219	223	208
Dec. „ ..	299 298	169	204	219	(e)	209

(a) The index in column "A" excludes, and that in column "B" includes, the price movement of potatoes and onions. See para. 5 on page 407. (b) New series cannot be linked to former series. (c) New Series linked to former series. (d) Consumers' Price Index from March Quarter, 1949, onwards. Index numbers for earlier periods (shown for purposes of comparison) are obtained by linking the movement in the Retail Price Index (base 1926-30) to the new index. (e) Not available.

B. WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

Two indexes of wholesale prices have been compiled by the Commonwealth Bureau of Census and Statistics. These are:—

- (i) The Melbourne Wholesale Price Index;
- (ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

Particulars of the Melbourne Wholesale Price Index, which is now obsolescent, are given in § 3 commencing on page 414.

After reviewing the list of items and weighting of this index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index—the Wholesale Price (Basic Materials and Foodstuffs) Index—which extends back to the year 1928 and is compiled monthly, is a special purpose index and one of a series of wholesale price indexes designed for special purposes.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

1. **Price Quotations.**—The prices used in the index have in the main been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally-produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of basic materials in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and, in respect of imported materials, as nearly as may be at the point where they first make effective impact on the local price structure. Thus the prices of imported goods are not taken at the time of import, but rather on an ex-bond (or into factory) basis.

Broadly, where home-consumption prices exist for local products, they have been used in this index. During the years 1950–51, wool for local manufacture was subsidized, and the home-consumption price for wool was used to calculate the index numbers shown in the table on page 414.

2. **Commodities and Grouping.**—For purposes of this index “basic” materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported, and goods which are mainly home-produced. The percentage of the total aggregate in 1959 contributed by each group was as follows:—Metals and coal, 17.53; oils, fats and waxes, 8.83; textiles, 2.98; chemicals, 3.93; rubber and hides, 2.15; building materials, 10.66; foodstuffs and tobacco, 53.92. Goods principally imported comprised 24.46 per cent. of the total aggregate in 1959, and goods principally home-produced, 75.54.

A full list of the commodities and the quantity-multipliers (weights) is published in *Labour Report* No. 46, 1958, page 26.

3. **Method of Construction.**—The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928–29 to 1934–35 inclusive. Changes in usage, changes of category as between “imported” and “home-produced” for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

During 1956, supplies and prices of potatoes and onions fluctuated violently upwards and downwards between abnormally wide limits. These fluctuations were so great as to dominate the movement of the sections of the index in which these items were included, namely, “Foodstuffs and Tobacco”, “Goods Principally Home-produced” and “Total All Groups”. In the circumstances of the case, neither seasonal adjustment nor conversion of the index to a “changing weights” formula could be applied to eliminate these transient fluctuations. Accordingly, in order to provide a representative measure of general trend in wholesale prices, the index was reconstructed as from July, 1936 by omitting potatoes and onions.

Consideration is being given to the enlargement of the index to cover additional groups and to revision of the weighting pattern of the index.

4. **Index Numbers.**—Index numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers, on the base: Average of three years ended June, 1939 = 100, are published monthly in the mimeographed statistical bulletin *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics*. A table showing index numbers computed to the base 1928 = 100 is published in the *Labour Report*.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS.

(Base of each Group: Average of 3 years ended June, 1939 = 100.)

Period.	Basic Materials.							Food-stuffs and Tobacco. (a)	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.		Goods principally Imported. (b)	Goods principally Home-produced. (a)	Total All Groups. (a)
1928-29	127	106	129	121	115	95	114	107	91	118	110
1929-30	126	111	99	116	87	94	107	110	94	118	111
1930-31	116	117	80	117	73	96	105	91	100	99	99
1931-32	108	113	77	119	74	95	101	86	100	92	95
1932-33	104	109	75	119	69	95	98	80	97	87	90
1933-34	103	84	102	111	80	94	92	84	89	89	90
1934-35	97	90	78	102	77	93	89	87	92	89	90
1935-36	92	95	100	99	88	93	90	92	95	92	93
1936-37	96	99	118	99	111	99	99	98	99	98	99
1937-38	101	101	100	100	97	104	102	102	102	101	101
1938-39	103	100	82	101	92	97	99	101	99	100	100
1939-40	105	115	104	107	116	108	109	99	111	101	104
1940-41	107	137	111	124	126	128	122	107	133	106	114
1941-42	117	151	118	137	135	135	133	116	153	112	124
1942-43	129	167	147	142	138	163	149	126	176	120	136
1943-44	131	170	150	143	140	174	153	130	182	122	140
1944-45	131	168	152	143	140	175	152	132	182	124	141
1945-46	130	156	152	142	140	177	149	136	178	127	142
1946-47	132	145	191	140	131	180	149	139	177	130	144
1947-48	146	161	283	148	126	190	166	154	192	145	159
1948-49	185	173	342	159	130	198	188	174	201	172	180
1949-50	214	184	434	187	143	225	214	196	223	196	204
1950-51	256	196	641	242	292	268	264	229	256	240	244
1951-52	343	220	577	314	298	370	321	276	288	300	297
1952-53	392	234	607	350	224	404	350	293	292	331	319
1953-54	388	222	566	323	191	363	332	308	271	339	319
1954-55	391	214	510	314	246	372	330	315	277	340	322
1955-56	404	220	456	317	328	415	345	325	292	352	334
1956-57	409	241	520	344	302	463	367	324	311	357	344
1957-58	398	238	437	349	280	453	355	325	301	355	339
1958-59	392	231	362	327	293	423	340	332	283	358	336
1959—											
Jan. . .	391	231	333	327	263	422	336	320	280	347	327
Feb. . .	392	231	346	327	284	422	338	328	281	354	332
Mar. . .	390	232	353	327	326	422	340	341	282	365	340
Apr. . .	390	232	398	327	410	422	346	340	282	368	343
May . . .	387	232	402	327	371	422	344	336	284	363	340
June . . .	388	232	392	327	361	422	343	338	284	364	340
July . . .	385	231	392	330	394	422	343	340	282	366	342
Aug. . .	388	230	417	330	411	422	346	343	281	371	345
Sept. . .	388	223	405	330	414	425	345	339	276	369	342
Oct. . .	388	223	404	328	375	425	343	339	277	367	341
Nov. . .	390	223	399	328	360	425	342	335	279	363	338
Dec. . .	389	223	411	328	359	433	344	338	280	366	341

(a) During 1956 these indexes were reconstructed from July, 1936 by excluding potatoes and onions. See para. 3 on p. 413. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports.

§ 3. Melbourne Wholesale Price Index.

1. General.—An index of Melbourne wholesale prices was first computed in 1912. It relates chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that date. Neither the components of the list of items nor the weighting have been varied, except as indicated in footnote (a) to the following table. Consequently, the index is outmoded for current use but it has some historical significance as a measure of changes in the prices of its component items combined in the proportions in which they were in common use about the year 1910. It is now published on an annual basis for "All Groups" only and is used mainly as an approximate indication of long-term trends since the year 1861, for which it was first compiled. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43-45.

2. **Index Numbers.**—Index numbers for each group of commodities as well as for all groups combined are shown in the following table:—

MELBOURNE WHOLESALE PRICE INDEX NUMBERS.

(Base of each Group: Year 1911 = 1,000.)

Year.	Metals and Coal.	Wool, Cotton, Leather, etc.	Agricultural Produce, etc.	Dairy Produce.	Groceries.	Meat.	Building Materials.	Chemicals.	All Groups.
1861	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1921	2,173	1,361	1,767	2,000	1,977	2,158	2,733	2,303	1,903
1931	1,826	1,040	1,121	1,398	1,794	1,512	2,025	2,166	1,429
1941	1,960	1,402	1,721	1,554	1,883	1,776	3,138	2,527	1,796
1949	3,502	3,966	2,876	2,309	2,558	3,356	4,611	3,221	3,191
1950	3,902	5,464	3,155	2,459	2,829	4,616	(a)5,567	3,263	3,816
1951	5,080	7,943	4,512	2,930	2,850	6,438	(a)7,074	3,294	5,098
1952	6,481	7,365	5,038	4,024	3,455	6,289	(a)9,338	3,723	5,647
1953	6,615	6,950	4,958	4,533	3,767	6,303	(a)8,519	4,691	(b)5,631

(a) The list of items and weighting of the original Building Materials group of this index are outmoded in respect of recent years. The movement shown here for this group between 1949 and 1953 has been calculated in accordance with the movement occurring in the Building Materials group of the Basic Materials and Foodstuffs Index. (b) The "All Groups" index numbers for the years 1954, 1955, 1956, 1957, 1958 and 1959 were 5,384, 5,548, 5,916, 5,814, 5,575 and 5,394 respectively.

C. CONTROL OF PRICES DURING AND SINCE THE 1939-45 WAR.

1. **General.**—An account of the measures taken by the Commonwealth Government to control prices from September, 1939 (immediately after the outbreak of war), until 29th May, 1948 (the date of the Prices Referendum), was given in Official Year Book No. 37, pages 458-464.

2. **Transfer of Price Control to the States.**—Consequent upon the rejection of the proposal embodied in the Prices Referendum held on 29th May, 1948, that permanent power to control rents and prices (including charges) be conferred on the Commonwealth Government, responsibility for price fixation was assumed by the State Governments and steps were taken to pass State Prices Acts. These acts were proclaimed to operate simultaneously on 20th September, 1948. Except in the case of Queensland, each Act was to remain in force for a specific period, but the period varied from State to State.

On 20th September, 1948, each State Government issued declarations covering uniform lists of goods and services, which were brought under price control. Existing Commonwealth Prices Regulation Orders continued to apply to these goods and services until specially varied in accordance with the terms of the State legislation. At the same time, the Commonwealth Government issued an identical list of declared items to operate in the Australian Capital Territory and other Territories of the Commonwealth.

In the operation of State price control, the State Prices Commissioners collaborated closely. Conferences of Commissioners were held at intervals of approximately two months. Thus a large degree of uniformity was attained in controlling and decontrolling items and in the fixation of margins and prices of major items.

Since 1952, price control has been progressively modified in all States. General price control ceased in Western Australia on 31st December, 1953; in Tasmania on 31st October, 1954; in Victoria on 31st December, 1954; and in the Australian Capital Territory on 10th February, 1955. In New South Wales, general control of prices was suspended on 15th April, 1955, but was temporarily restored on some items from July, 1955 to September, 1956.

3. **Price Stabilization.**—Expenditure by the Commonwealth Government on price stabilization subsidies reached a peak in 1947-48 and since then the Commonwealth Government has progressively reduced the range of commodities eligible for subsidy.

In addition to those subsidies which had been an integral part of the Price Stabilization Plan, the Commonwealth Government paid bounties and subsidies for assistance to primary production, and these payments also had a stabilizing influence on prices.

For particulars of expenditure by the Commonwealth Government on price stabilization see Official Year Book No. 38, page 414 and for other subsidies and bounties, see Chapter XXI.—Public Finance.

D. WAGES.

§ 1. Arbitration and Wages Boards Acts and Associated Legislation.

1. **General.**—Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report* and in issues of the Official Year Book prior to No. 38.

2. **Commonwealth.**—Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to "conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State". The Parliament has made such a law, namely the Conciliation and Arbitration Act.

This Act defines an "industrial dispute" as "(a) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any one State; and (b) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(c) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (d) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (e) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act 1920-1959* or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing, or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State."

The Conciliation and Arbitration Act was extensively amended by an Act (No. 44 of 1956) assented to on 30th June, 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. Further amendments were made by Act No. 103 of 1956, Act No. 30 of 1958 and Act No. 40 of 1959. A summary of the provisions of the Conciliation and Arbitration Act 1904-1959 is given in the following paragraphs.

The Commonwealth Industrial Court is composed of a Chief Judge and not more than two other Judges. The Commonwealth Conciliation and Arbitration Commission comprises a President, not less than two Deputy Presidents, a Senior Commissioner, not less than five Commissioners and a number of Conciliators. Judges of the Commonwealth Court of Conciliation and Arbitration were made either members of the Commonwealth Industrial Court or presidential members of the Commonwealth Conciliation and Arbitration Commission. Conciliation Commissioners became non-presidential members of the Commission.

The jurisdiction of the Commonwealth Industrial Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organization, disputes between an organization and its members and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employers and for inquiries to be held concerning disputed elections in organizations; and certain powers in connexion therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organization. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision was also made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to

appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the Public Service Arbitration Act 1920-1959, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right and proper for (a) effecting a reconciliation between parties to industrial disputes; (b) preventing and settling industrial disputes by amicable agreement; and (c) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However, subject to the approval of the President, it is the duty of the Senior Commissioner to organize and allocate the work of the Commissioners and Conciliators.

When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached, a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

The Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President and not otherwise, is empowered to deal with making awards, or certifying agreements, in so far as they concern standard hours, basic wages and long-service leave.

Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of the full bench of the Commission, so that the full bench can have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the Conciliation and Arbitration Act or the Public Service Arbitration Act, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connexion with the Maritime Industries, Snowy Mountains Area and Stevedoring Industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member.

The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organization or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law

of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section 3 of the Public Service Arbitration Act 1920-1959, not being the Commonwealth Employees' Compensation Act 1930-1959, the Commonwealth Employees' Furlough Act 1943-1959, the Superannuation Act 1922-1959 or any other prescribed Act.

The Act provides that where a State law, or an order, award, decision or determination of a State industrial authority is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation see the annual *Labour Report*.

3. *States*.—In each State, Industrial Tribunals have been established to regulate and arbitrate in industrial matters. The chief of these are the Industrial Commission of New South Wales, the Industrial Courts of Queensland and South Australia, and the Western Australian Court of Arbitration, together with Wages Boards for specific industries or occupations which operate in Victoria, South Australia and Tasmania. Further details concerning the functions and powers of these authorities may be found in the *Labour Report*.

§ 2. Rates of Wage and Hours of Work.

1. *General*.—This section contains new indexes (with base year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the new indexes there are 16 industrial groups for adult males and 8 industrial groups for adult females. For relevant periods the new indexes replace cognate indexes (Base: Year 1911 = 1,000 for males and April, 1914 = 1,000 for females) published in previous issues. Pending further investigation there is no new index for the rural group.

The overall trends of the old and new indexes (excluding rural industry) show comparatively little divergence from each other, except in the mining and building groups, for which the basis of measuring wage rates was changed in the new indexes.

The old indexes were the unweighted averages of selected occupations for each industry. The aggregate indexes combined these industry indexes by using industry weights current in or about 1911. The new indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April, 1954, which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November, 1954. This second survey showed the number of employees in each occupation within selected awards, etc., thereby providing occupation weights.

In addition to the improved weighting, some desirable changes have been made in the industry classification used. The Miscellaneous group in the old index has been dissected into two component industry groups "Wholesale and Retail Trade", and "Public Administration and Professional". Two new groups, "Communication" and "Amusement, Sport and Recreation", have been included. The "Domestic" part of the Domestic, Hotels, etc. group has been omitted because of coverage difficulties. The former Pastoral, Agricultural, etc. group is not yet included in the new index. Further data are being sought for this industry.

The minimum wage rates and standard hours of work used in the new indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each quarter, commencing with 31st March, 1939 for adult males and 31st March, 1951 for adult females. The index for adult males includes rates and hours for 3,393 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,301. For adult females the corresponding numbers are 1,120 and 522. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industrial group for each State and Australia.

The indexes are designed to measure movements in prescribed minimum rates of "wages" as distinct from "salaries". Consequently, awards, etc., relating solely or mainly to salary earners are excluded.

A more detailed description of the new indexes of minimum rates of wage and standard hours of work is given in *Labour Report* No. 47, 1959, which also contains an extensive tabular presentation of the minimum rates of wage for adult males and females in the principal occupations in the capital city of each State.

2. **Weekly Wage Rates.**—(i) *Adult Males—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers at the dates specified:—

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS.(a)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE.(b)							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1939..	100 1	97 1	99 5	94 1	100 6	92 2	98 4
" " 1945..	122 6	121 1	118 1	116 0	120 4	115 7	120 7
" " 1950..	206 2	201 9	195 2	197 11	200 7	198 0	202 0
" " 1955..	305 3	295 7	283 6	285 0	300 1	293 7	297 0
" " 1959..	348 3	343 8	334 0	338 11	338 10	345 7	343 6

INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

31st December, 1939..	35.4	34.4	35.2	33.3	35.6	32.6	34.8
" " 1945..	43.4	42.9	41.8	41.1	42.6	40.9	42.7
" " 1950..	73.0	71.4	69.1	70.1	71.0	70.1	71.5
" " 1955..	108.1	104.7	100.4	100.9	106.3	104.0	105.2
" " 1959..	123.3	121.7	118.3	120.0	120.0	122.4	121.6

(a) Excludes Rural. (b) The amounts shown should not be regarded as actual current averages but as an index expressed in money terms, indicative of trends.

(ii) *Adult Males—Industrial Groups.* The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industrial group and for all groups (excluding rural) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRIAL GROUPS, AUSTRALIA.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Industrial Group.	31st Dec., 1939.	31st Dec., 1945.	31st Dec., 1950.	31st Dec., 1955.	31st Dec., 1959.
RATES OF WAGE.(a)					
	s. d.	s. d.	s. d.	s. d.	s. d.
Mining and Quarrying ..	109 11	138 8	259 7	366 10	405 8
Engineering, Metal Works, etc. ..	99 10	122 2	201 8	294 9	344 0
Textiles, Clothing and Footwear ..	93 1	115 10	197 5	285 0	331 6
Food, Drink and Tobacco ..	99 1	119 11	201 5	295 9	338 3
Sawmilling, Furniture, etc. ..	97 6	117 11	196 0	288 10	335 0
Paper, Printing, etc. ..	104 7	127 8	214 3	312 6	362 9
Other Manufacturing ..	96 5	118 7	197 7	291 4	333 4
All Manufacturing Groups ..	98 8	120 8	200 10	294 1	340 8
Building and Construction ..	99 3	119 8	198 7	295 6	342 5
Railway Services ..	94 6	117 9	195 10	290 11	336 4
Road and Air Transport ..	99 1	121 7	197 11	294 3	338 5
Shipping and Stevedoring(b) ..	91 0	117 7	196 7	276 11	338 1
Communication ..	97 10	123 9	213 4	316 6	383 7
Wholesale and Retail Trade ..	98 6	119 5	200 10	297 9	339 5
Public Administration and Professional ..	91 11	113 9	192 1	289 10	332 1
Amusement, Sport and Recreation ..	103 4	125 5	202 1	313 1	364 11
Hotels, etc. and Personal Service ..	91 11	112 11	190 1	276 9	318 11
All Industrial Groups(c) ..	98 4	120 7	202 0	297 0	343 6

For footnotes see next page.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRIAL GROUPS, AUSTRALIA
—continued.

Industrial Group.	31st Dec., 1939.	31st Dec., 1945.	31st Dec., 1950.	31st Dec., 1955.	31st Dec., 1959.
INDEX NUMBERS.					
(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)					
Mining and Quarrying	38.9	49.1	91.9	129.9	143.6
Engineering, Metal Works, etc. ..	35.3	43.3	71.4	104.4	121.8
Textiles, Clothing and Footwear ..	33.0	41.0	69.9	100.9	117.4
Food, Drink and Tobacco	35.1	42.5	71.3	104.7	119.8
Sawmilling, Furniture, etc.	34.5	41.8	69.4	102.3	118.6
Paper, Printing, etc.	37.0	45.2	75.9	110.7	128.4
Other Manufacturing	34.1	42.0	70.0	103.2	118.0
All Manufacturing Groups	34.9	42.7	71.1	104.1	120.6
Building and Construction	35.1	42.4	70.3	104.6	121.2
Railway Services	33.5	41.7	69.3	103.0	119.1
Road and Air Transport	35.1	43.0	70.1	104.2	119.8
Shipping and Stevedoring(b)	32.2	41.6	69.6	98.1	119.7
Communication	34.6	43.8	75.5	112.1	135.8
Wholesale and Retail Trade	34.9	42.3	71.1	105.4	120.2
Public Administration and Professional ..	32.5	40.3	68.0	102.6	117.6
Amusement, Sport and Recreation ..	36.6	44.4	71.6	110.9	129.2
Hotels, etc. and Personal Service ..	32.5	40.0	67.3	98.0	112.9
All Industrial Groups(c)	34.8	42.7	71.5	105.2	121.6

(a) The amounts shown should not be regarded as actual current averages but as an index expressed in money terms, indicative of trends. (b) Includes the value of keep, where supplied. (c) Excludes Rural.

(iii) *Adult Females—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE.(a)							
31st December, 1951.. ..	s. d. 172 4	s. d. 172 2	s. d. 161 2	s. d. 170 3	s. d. 162 6	s. d. 165 7	s. d. 170 4
" " 1953.. ..	200 6	201 4	188 2	199 1	190 2	197 2	198 9
" " 1955.. ..	209 8	210 5	194 3	201 9	197 9	200 0	206 11
" " 1957.. ..	223 8	225 0	206 1	219 6	212 5	219 0	221 3
" " 1959.. ..	248 10	241 1	229 6	238 11	223 7	234 1	241 10

INDEX NUMBERS.

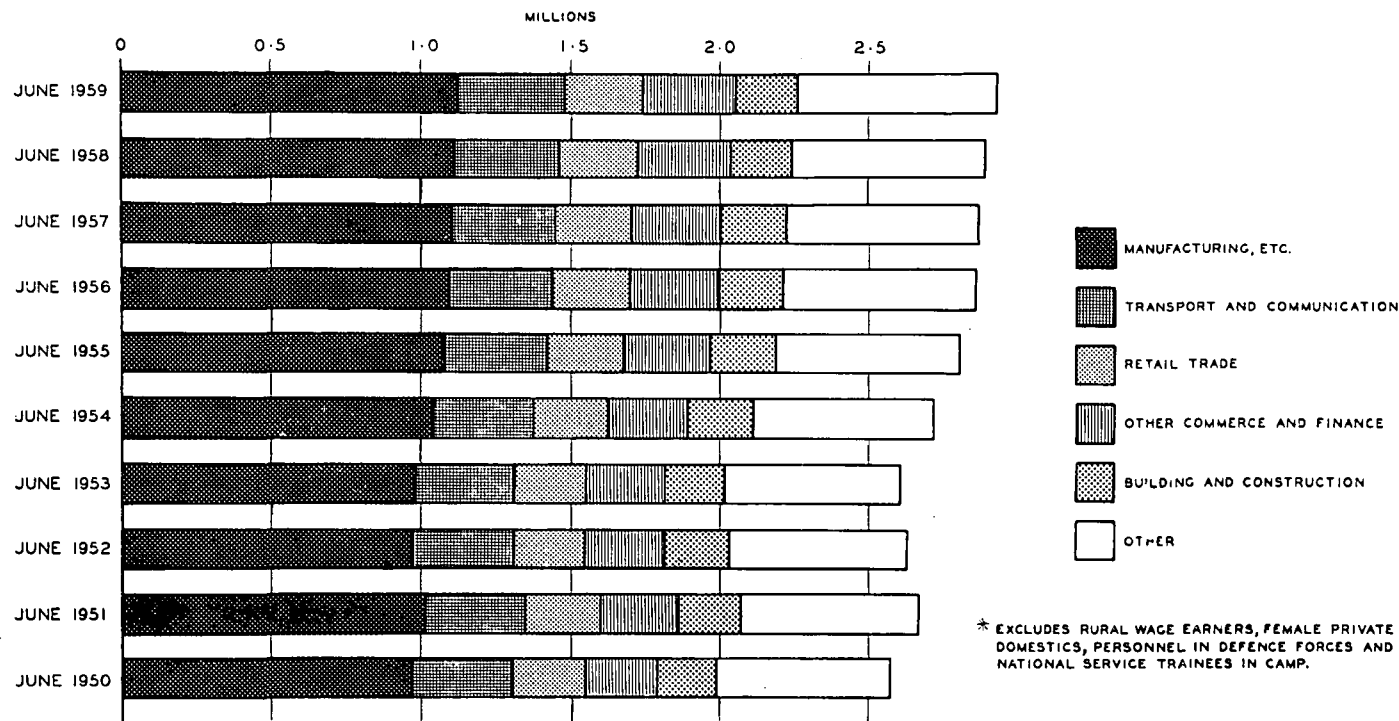
(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

31st December, 1951.. ..	86.6	86.5	81.0	85.5	81.6	83.2	85.6
" " 1953.. ..	100.7	101.1	94.5	100.0	95.5	99.0	99.8
" " 1955.. ..	105.3	105.7	97.6	101.3	99.3	100.5	103.9
" " 1957.. ..	112.4	113.0	103.5	110.3	106.7	110.0	111.1
" " 1959.. ..	125.0	121.1	115.3	120.0	112.3	117.6	121.5

(a) See note (a) to previous table.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT*

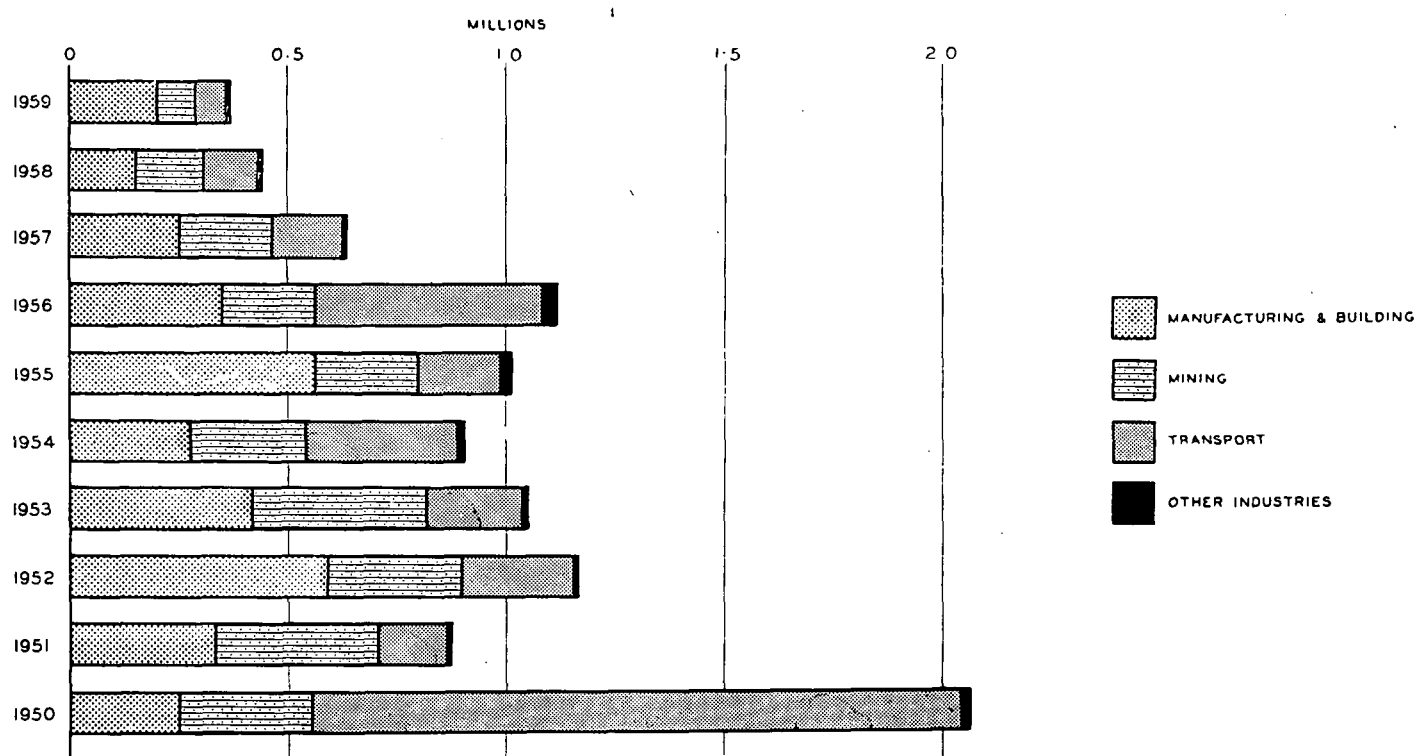
AUSTRALIA, 1950 TO 1959



* EXCLUDES RURAL WAGE EARNERS, FEMALE PRIVATE DOMESTICS, PERSONNEL IN DEFENCE FORCES AND NATIONAL SERVICE TRAINEES IN CAMP.

INDUSTRIAL DISPUTES, AUSTRALIA, 1950 TO 1959

WORKING DAYS LOST - INDUSTRIAL GROUPS



(iv) *Adult Females—Industrial Groups.* The following table shows for Australia (a) the weighted average minimum weekly rate of wage in each of the industrial groups in which the number of females employed is important, and (b) the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRIAL GROUPS, AUSTRALIA.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Industrial Group.	31st Dec., 1951.	31st Dec., 1953.	31st Dec., 1955.	31st Dec., 1957.	31st Dec., 1959.
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RATES OF WAGE.(a)

	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Engineering, Metal Works, etc. ..	170 11	200 7	206 6	220 9	241 2
Textiles, Clothing and Footwear ..	171 2	198 9	200 11	217 4	237 3
Food, Drink and Tobacco ..	165 9	194 6	206 10	215 11	235 11
Other Manufacturing ..	168 9	197 7	203 7	217 8	238 5
All Manufacturing Groups ..	169 11	198 3	203 4	217 10	238 0
Transport and Communication ..	177 6	206 5	213 10	228 3	254 4
Wholesale and Retail Trade ..	171 1	199 7	213 0	227 2	247 6
Public Administration and Professional ..	170 1	199 1	209 8	224 7	244 2
Hotels, etc. and Personal Service ..	166 6	194 2	200 7	214 7	235 4
All Industrial Groups.. ..	170 4	198 9	206 11	221 3	241 10

INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

Engineering, Metal Works, etc. ..	85.9	100.8	103.7	110.9	121.1
Textiles, Clothing and Footwear ..	86.0	99.8	100.9	109.2	119.2
Food, Drink and Tobacco ..	83.3	97.7	103.9	108.5	118.5
Other Manufacturing ..	84.8	99.2	102.3	109.3	119.8
All Manufacturing Groups ..	85.4	99.6	102.1	109.4	119.5
Transport and Communication ..	89.2	103.7	107.4	114.7	127.8
Wholesale and Retail Trade ..	85.9	100.3	107.0	114.1	124.3
Public Administration and Professional ..	85.4	100.0	105.3	112.8	122.6
Hotels, etc. and Personal Service ..	83.6	97.5	100.8	107.8	118.2
All Industrial Groups.. ..	85.6	99.8	103.9	111.1	121.5

(a) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

3. **Hourly Wage Rates.**—(i) *General.* The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc., for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely, the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industrial groups except Rural and Shipping and Stevedoring. The Rural industry is not yet included in the new index and Shipping and Stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

(ii) *Adult Males—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult male workers in each State at the dates specified.

HOURLY WAGE RATES(a) : ADULT MALES.**WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES.**

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
RATES OF WAGE.(b) (Pence.)							
31st December, 1939..	27.48	26.44	27.49	25.45	27.15	25.14	26.91
" " 1945..	33.64	33.05	32.63	31.72	32.83	31.71	33.05
" " 1950..	61.96	60.58	58.60	59.44	60.35	59.42	60.70
" " 1955..	91.89	88.87	85.22	85.68	90.50	88.45	89.36
" " 1959..	104.68	103.20	100.25	101.78	101.96	103.83	103.18

INDEX NUMBERS.*(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100.)*

31st December, 1939..	32.4	31.1	32.4	30.0	32.0	29.6	31.7
" " 1945..	39.6	38.9	38.4	37.4	38.7	37.3	38.9
" " 1950..	73.0	71.4	69.0	70.0	71.1	70.0	71.5
" " 1955..	108.2	104.7	100.4	100.9	106.6	104.2	105.3
" " 1959..	123.3	121.6	118.1	119.9	120.1	122.4	121.5

(a) Weighted average hourly rates of wage for all industrial groups except Rural and Shipping and Stevedoring. See para. 3 (i) on previous page. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(iii) *Adult Females—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult female workers in each State at the dates specified.

HOURLY WAGE RATES: ADULT FEMALES.**WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES.**

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
RATES OF WAGE.(a) (Pence.)							
31st December, 1951..	52.30	51.90	48.72	51.37	49.02	50.23	51.51
" " 1953..	60.87	60.69	56.88	60.07	57.37	59.81	60.12
" " 1955..	63.65	63.43	58.72	60.88	59.65	60.67	62.59
" " 1957..	67.90	67.82	62.29	66.23	64.08	66.43	66.93
" " 1959..	75.54	72.67	69.37	72.09	67.44	71.01	73.15

INDEX NUMBERS.*(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100.)*

31st December, 1951..	86.9	86.2	80.9	85.3	81.4	83.4	85.6
" " 1953..	101.1	100.8	94.5	99.8	95.3	99.3	99.9
" " 1955..	105.7	105.3	97.5	101.1	99.1	100.8	104.0
" " 1957..	112.8	112.6	103.5	110.0	106.4	110.3	111.2
" " 1959..	125.5	120.7	115.2	119.7	112.0	117.9	121.5

(a) See note (b) to previous table.

4. **Weekly Hours of Work.**—(i) *General.* The number of hours constituting a full week's work (excluding overtime) differs in some instances between various occupations in each State and between the same occupations in the several States. The particulars of weekly hours of work given in the following tables relate to all industrial groups except Rural and

Shipping and Stevedoring. The former is not included in the index and the latter has been excluded because of the difficulty of obtaining, for some of the occupations, definite particulars for the computation of average working hours.

(ii) *Adult Males—States.* The following table shows the weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week in respect of adult male workers in each State and Australia, together with the corresponding index numbers.

Except in Tasmania, there has been no change in the weighted average standard hours of work for adult males since 1953.

WEEKLY HOURS OF WORK (EXCLUDING OVERTIME)(a): ADULT MALES.

WEIGHTED AVERAGE STANDARD HOURS OF WORK (EXCLUDING OVERTIME) FOR A FULL WORKING WEEK AND INDEX NUMBERS OF HOURS OF WORK.

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
WEEKLY HOURS OF WORK.(b)							
31st December, 1939 ..	43.78	44.10	43.51	44.41	44.57	44.11	43.96
" " 1947 ..	41.81	43.78	43.38	43.83	43.88	43.60	42.96
" " 1948 ..	39.96	39.99	39.98	39.97	39.94	40.17	39.98
" " 1959 ..	39.95	39.97	39.98	39.96	39.89	39.97	39.96

INDEX NUMBERS.

(Base: Weighted Average for Australia, 1954 = 100.)

31st December, 1939 ..	109.6	110.4	108.9	111.1	111.5	110.4	110.0
" " 1947 ..	104.6	109.6	108.6	109.7	109.8	109.1	107.5
" " 1948 ..	100.0	100.1	100.0	100.0	99.9	100.5	100.0
" " 1959 ..	100.0	100.0	100.0	100.0	99.8	100.0	100.0

(a) Weighted average working hours per week for all industrial groups except Rural and Shipping and Stevedoring. See para. 4 (i) above. (b) The figures shown should not be regarded as actual current averages, but as an index expressed in hours, indicative of trends.

(iii) *Adult Females—States.* The following table shows the weighted average standard hours of work (excluding overtime) prescribed in awards for a full working week for adult female workers in each State and Australia at 31st December, 1951 and 1959, together with the corresponding index numbers.

WEEKLY HOURS OF WORK (EXCLUDING OVERTIME): ADULT FEMALES.

WEIGHTED AVERAGE STANDARD HOURS OF WORK (EXCLUDING OVERTIME) FOR A FULL WORKING WEEK AND INDEX NUMBERS OF HOURS OF WORK.

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
WEEKLY HOURS OF WORK.(a)							
31st December, 1951 ..	39.54	39.81	39.70	39.77	39.78	39.56	39.68
" " 1959 ..	39.53	39.81	39.70	39.77	39.78	39.56	39.67

INDEX NUMBERS.

(Base: Weighted Average for Australia, 1954 = 100.)

31st December, 1951 ..	99.7	100.4	100.1	100.3	100.3	99.7	100.0
" " 1959 ..	99.6	100.4	100.1	100.3	100.3	99.7	100.0

(a) See note (b) to previous table.

5. "Real" Wage Rates.—Pending further investigation, the particulars of "real" wage rates, previously published, have been omitted from this issue.

§ 3. Average Weekly Wage Earnings.

1. **Average Weekly Total Wages Paid and Average Earnings, All Industries.**—The following figures are derived from employment and wages recorded on Pay-roll Tax returns (which cover approximately 73 per cent. of the estimated number of civilian wage and salary earners in employment), from other direct collections and from estimates of the unrecorded balance. Pay of members of the Defence Forces is not included. The figures are not seasonally adjusted, but a seasonally adjusted quarterly index of average weekly wage earnings is shown in para. 2 below. Corresponding figures for each quarter are published in the *Monthly Review of Business Statistics*, the *Monthly Bulletin of Employment Statistics* and the *Digest of Current Economic Statistics*.

AVERAGE WEEKLY TOTAL WAGES PAID AND AVERAGE EARNINGS.(a)

Year.	N.S.W. (b)	Vic.	Q'land.	S. Aust. (c)	W. Aust.	Tas.	Aust.
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AVERAGE WEEKLY TOTAL WAGES PAID.

(£'000.)

1953-54	16,480	11,767	5,227	3,615	2,754	1,305	41,148
1954-55	..	..	17,970	12,901	5,601	3,940	2,928	1,399	44,739
1955-56	..	..	19,764	14,144	6,033	4,330	3,104	1,521	48,896
1956-57	..	..	20,943	14,925	6,457	4,507	3,177	1,635	51,644
1957-58	..	..	21,664	15,510	6,585	4,635	3,284	1,671	53,349
1958-59	..	..	22,414	16,240	6,970	4,823	3,347	1,725	55,519

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT.(d)

(£.)

1953-54	..	..	16.69	16.64	14.98	15.87	15.59	15.78	16.26
1954-55	..	..	17.64	17.59	15.58	16.83	16.11	16.54	17.13
1955-56	..	..	18.92	18.78	16.49	17.88	16.92	17.75	18.28
1956-57	..	..	19.89	19.70	17.50	18.28	17.48	18.79	19.16
1957-58	..	..	20.44	20.22	17.94	18.68	18.05	18.95	19.67
1958-59	..	..	21.04	20.69	18.64	19.10	18.19	19.33	20.19

(a) Includes salaries. (b) Includes the Australian Capital Territory. (c) Includes the Northern Territory. (d) Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. The same ratio has been used in each State, and because the average ratio of female to male earnings may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures above.

2. **Average Weekly Wage Earnings Index Numbers.**—The following table shows, for "All Industries" and for "Manufacturing", the movement in average weekly wage earnings from 1947-48 to the March Quarter, 1960. The "All Industries" index is based on Pay-roll Tax returns and other data. The index for manufacturing industries for the years 1947-48 to 1958-59 is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (*see* Chapter VI.—Manufacturing Industry, § 8, para. 2 (iii)); figures subsequent to June, 1959 are preliminary estimates based on Pay-roll Tax returns.

The index numbers show for "All Industries" and "Manufacturing" the movement in average earnings over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is the year 1953-54 = 100 and both series have been seasonally adjusted. The series shown herein, with base 1953-54 = 100, replace the series with base 1945-46 = 1000, published in previous issues.

AVERAGE WEEKLY WAGE EARNINGS^(a) INDEX NUMBERS: AUSTRALIA.

NEW SERIES (SEASONALLY ADJUSTED).

(Base of each Series: 1953-54 = 100.)

Year.	All Industries. ^(b)	Manufacturing.	Quarter.	All Industries. ^(b)	Manufacturing.
1947-48..	47.5	48.0	1957-58—Sept.	120.2	119.8
1948-49..	53.9	54.3	Dec.	121.5	122.1
1949-50..	59.3	60.0	March	121.3	122.3
1950-51..	71.1	72.0	June	122.3	123.6
1951-52..	87.1	88.4			
1952-53..	95.2	95.4	1958-59—Sept.	123.5	124.1
			Dec.	124.5	125.9
1953-54..	100.0	100.0	March	124.2	125.3
1954-55..	105.4	106.9	June	125.5	126.6
1955-56..	112.2	113.8			
1956-57..	118.2	118.3	1959-60—Sept.	129.6	130.9
1957-58..	121.3	122.0	Dec.	130.5	131.8
1958-59..	124.4	125.5	March	135.3	136.5

(a) Includes salaries. (b) Average earnings per male unit employed. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

§ 4. Basic Wages in Australia.

1. General.—The concept of a "basic" or "living" wage is common to rates of wage determined by industrial authorities in Australia. Initially the concept was interpreted as the "minimum" or "basic" wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it is now generally accepted "that the wage should be fixed at the highest amount which the economy can sustain and that the 'dominant factor' is the capacity of the community to carry the resultant wage levels."*

Under the Commonwealth Conciliation and Arbitration Act 1904-1959 (*see* page 416), the Commonwealth Conciliation and Arbitration Commission (previously the Commonwealth Court of Conciliation and Arbitration) may, for the purpose of preventing or settling an industrial dispute extending beyond the limits of any State, make an order or award "altering the basic wage (that is to say, that wage or that part of the wage, which is just and reasonable for an adult male [female], without regard to any circumstance pertaining to the work upon which, or the industry in which he [she] is employed) or the principles upon which it is computed".

In the past, the Commonwealth Court of Conciliation and Arbitration held *genera* basic wage inquiries from time to time and its findings applied to industrial awards within its jurisdiction. Prior to the decision of the Commonwealth Court of Conciliation and Arbitration, announced on 12th September, 1953, discontinuing the automatic adjustment of basic wages in Commonwealth awards in accordance with variations occurring in retail price index numbers, the relevant basic wage of the Commonwealth Court of Conciliation and Arbitration was adopted to a considerable extent by State Industrial Tribunals. In New South Wales and South Australia, the State industrial authorities adopted the relevant Commonwealth basic wage. In Victoria and Tasmania, where the Wages Boards systems operate, no provision was included in the industrial Acts for the declaration of a basic wage, although, in the past, Wages Boards generally adopted basic wages based on those of the Commonwealth Court. In Queensland and Western Australia, the determination of a basic wage is a function of the respective State Industrial or Arbitration Courts and (subject to State law) they took into account the rates determined by the Commonwealth Court.

* Commonwealth Arbitration Reports, Vol. 77, p. 494.

Following the decision of the Commonwealth Court of Conciliation and Arbitration to discontinue automatic quarterly adjustments to the basic wage, the various State industrial authorities have determined State basic wages in accordance with the provisions of their respective State industrial legislation. Details of the action taken in each State and subsequent variations in State basic wages are set out in para. 5 (*see pp. 441-5*).

In addition to the basic wage, "secondary" wage payments, including margins for skill, loadings and other special considerations peculiar to the occupations or industry, are determined by these authorities. The basic wage, and the "secondary" wage, where prescribed, make up the "minimum" wage for a particular occupation. The term "minimum wage" as distinct from the basic wage is used currently to express the lowest rate payable for a particular occupation or industry.

2. The Commonwealth Basic Wage.—(i) *Early Judgments.* The principle of a living or basic wage was propounded as far back as 1890 but it was not until 1907 that a wage, as such, was declared by a Court in Australia. The declaration was made by way of an order in terms of section 2 (d) of the Excise Tariff 1906 in the matter of an application by H. V. McKay that the remuneration of labour employed by him at the Sunshine Harvester Works, Victoria, was "fair and reasonable". Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, defined the standard of a "fair and reasonable" minimum wage for unskilled labourers as that standard appropriate to "the normal needs of the average employee, regarded as a human being living in a civilized community".* The rate declared was 7s. a day or £2 2s. a week for Melbourne, the amount considered reasonable for "a family of about five".

The "Harvester" standard was adopted by the Commonwealth Court of Conciliation and Arbitration for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of retail price index numbers, covering food and groceries and rent of all houses ("A" Series) for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. The basic wage rates for towns were thereafter varied in accordance with the respective retail price index numbers. Court practice was to equate the retail price index number 875 for Melbourne for the year 1907 to the "Harvester" rate of 42s. a week (or the base of the index (1,000) to 48s. a week). At intervals thereafter as awards came before it for review, the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index. In some country towns, certain "loadings" were added by the Court to wage rates so derived to offset the effect of lower housing standards, and consequently of house rents, on the index numbers for these towns.

Over the period of its operation, the adequacy or otherwise of the "Harvester" standard was the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. During the period of rapidly rising prices towards the end of the 1914-18 War, strong criticism developed that this system did not adequately maintain the "Harvester" equivalent. A Royal Commission was appointed in 1919 to inquire as to what it would actually cost a man, wife and three children under fourteen years of age to live in a reasonable standard of comfort, and as to how the basic wage might be automatically adjusted to maintain purchasing power. The Commission's Reports were presented in 1920 and 1921. An application by the unions to have the amounts arrived at by the inquiry declared as the basic wage was not accepted by the Court because they were considerably in advance of existing rates and grave doubts were expressed by members of the Court as to the ability of industry to pay such rates. Further details of the recommendations of the Commission were given in *Labour Report* No. 41, page 102.

The system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in the retail price index ("A" Series) was first introduced in 1921. The practice then adopted was to calculate the adjustments to the basic wage quarterly on the index number for the preceding quarter. Previously, adjustments had been made sporadically in relation to retail price indexes for the previous calendar year or the year ended with the preceding quarter. The practice adopted by the Commonwealth Court in 1921 of making automatic quarterly adjustments continued until the Court's judgment of 12th September, 1953 (*see page 431*).

* *Commonwealth Arbitration Reports*, Vol. 2, p. 3.

In 1922, an amount known as the "Powers' 3s." was added by the Court as a general "loading" to the weekly basic wage for the purpose of maintaining, during a period of rising prices, the full equivalent of the "Harvester" standard. This loading continued until 1934.

(ii) *Basic Wage Inquiries, 1930-31, 1932, 1933.* No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression, which began to be felt severely during 1930. Applications were then made to the Court for some greater measure of reduction of wages than that which resulted from the automatic adjustments due to falling retail prices. The Court held a general inquiry, and, while declining to make any change in the existing method of calculating the basic wage, reduced all wage rates under its jurisdiction by 10 per cent. from 1st February, 1931. In June, 1932, the Court refused applications by employee organizations for the cancellation of the 10 per cent. reduction in wage rates. In May, 1933, the Court again refused to cancel the 10 per cent. reduction in wage rates, but decided that the existing method of adjustment of the basic wage in accordance with the "A" Series retail price index number had resulted in some instances in a reduction of more than 10 per cent. In order to rectify this, the Court adopted the "D" Series of retail price index numbers for future quarterly adjustments of the basic wage.

Particulars of the 1930-31 and the 1932 Inquiries may be found in *Labour Report* No. 22, pages 45-48 and of the 1933 Inquiry in *Labour Report* No. 23, pages 45-46.

(iii) *Basic Wage Inquiry, 1934.* A summary of the judgment delivered on 17th April, 1934, was given in *Official Year Book* No. 29, page 545. Until this judgment the "Harvester" standard, adjusted by variations in retail price index numbers, continued to be the theoretical basis of the wage of the Commonwealth Court. The new rate for the six capital cities was in effect the same as that previously paid under the "A" Series, without the "Powers' 3s." and without the 10 per cent. reduction, which then ceased to operate.

Automatic quarterly adjustment of the basic wage was transferred from the "A" and the "D" Series to the "C" Series Retail Price Index. The base of the index (1,000) was taken by the Court as equal to 81s. a week. This gave rates as declared on this occasion for the capital cities on the basis of their respective index numbers ranging from 61s. for Brisbane to 67s. for Sydney and Hobart, the average wage for the six capital cities being 65s.

(iv) *Basic Wage Inquiry, 1937.* In May, 1937, the Commonwealth Court heard an application by the combined unions for an increase in the basic wage. The unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s., which on index numbers then current would have represented an average increase of about 10s. a week. The chief features of the judgment delivered on 23rd June were:—

(a) Amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" additional to the rates payable under the 1934 judgment, which were referred to in the judgment as the "needs" portion of the total resultant basic wages. These loadings, commonly referred to as "Prosperity" loadings, ranged, for capital cities, from 4s. to 6s., that for the six capitals being 5s.

(b) The basis of the adjustment of the "needs" portion of the wage in accordance with the variations shown by retail price index numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series (see page 403).

(c) Female and junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the judgment were reprinted in *Official Year Book* No. 30, pages 564-75 and in *Labour Report* No. 28, pages 77-87.

(v) *Basic Wage Inquiry, 1940.* On 5th August, 1940, the Full Court commenced the hearing of an application by the combined unions for an increase in the existing basic wage by raising the value of 1,000 (the base of the "C" Series Index upon which the "Court" Series was based) from 81s. to 100s. a week, and the incorporation of the existing

"Prosperity" loadings in the new rate mentioned. In its judgment of 7th February, 1941, the Court unanimously refused to grant any increase, owing mainly to the uncertainty of the economic outlook under existing war conditions. The application was stood over for further consideration. (*See* (vi) following.)

The Chief Judge stated: "The Court has always conceded that the 'needs' of an average family should be kept in mind in fixing a basic wage. But it has never, as the result of its own inquiry, specifically declared what is an average family, or what is the cost of a regimen of food, clothing, shelter and miscellaneous items necessary to maintain it in frugal comfort, or that a basic wage should give effect to any such finding. In the end economic possibilities have always been the determining factor . . . what should be sought is the independent ascertainment and prescription of the highest basic wage that can be sustained by the total of industry in all its primary, secondary and ancillary forms".*

The Chief Judge also suggested that the more logical system would be to grade the basic wage according to family responsibilities by means of a comprehensive system of child endowment, and that if a scheme of this nature were established, future fixations of the basic wage would be greatly simplified. (The Commonwealth Child Endowment Act came into operation on 1st July, 1941. For details *see* Chapter XVIII.—Welfare Services.)

(vi) "*Interim Basic Wage Inquiry*, 1946. As the result of (a) an application made by the Commonwealth Attorney-General for the restoration to the Full Court List of certain adjourned 1940 basic wage applications (*see* (v) above), (b) a number of fresh cases which had come to the Court since 1941, and (c) an application by the combined unions for an "interim" basic wage declaration, the Court commenced the hearing of this case on 25th November, 1946. Judgment was delivered on 13th December, 1946 whereby an increase of 7s. a week was granted in the "needs" portion of the basic wage then current, the rate for the six capital cities as a whole being increased from 93s. to 100s. a week. For automatic quarterly adjustments a new "Court" Index (Second Series) (Base 1923-27 = 87.0) was adopted. All "loadings" on the basic wage were retained. Further particulars of this judgment may be obtained from *Labour Report* No. 38, page 79.

(vii) *Basic Wage Inquiry*, 1949-50. This finalized the case begun in 1940 and continued in 1946 (*see* above). In 1946, during the hearing of the Standard Hours Inquiry and following the restoration to the Full Court List of applications for an increased basic wage, the Chief Judge ruled that the claim for an increase in the basic wage should be heard concurrently with the "40-hour week" claims then before the Court. The unions, however, objected to this course being followed, and, on appeal to the High Court, that Court in March, 1947, gave a decision which resulted in the Arbitration Court proceeding with the "Hours" Case to its conclusion.

The Basic Wage Inquiry, 1949-50, finally opened in February, 1949, and the general hearing of the unions' claims was commenced on 17th May, 1949. Separate judgments were delivered on 12th October, 1950;† in the judgments, which were in the nature of general declarations, a majority of the Court (Foster and Dunphy JJ.) was of the opinion that the basic wage for adult males should be increased by £1 a week, and that for adult females should be 75 per cent. of the adult male rate. Kelly C.J., dissenting, considered that no increase in either the male or the female wage was justified.

The Court on 24th October and 17th and 23rd November, 1950, made further declarations concerning the "Prosperity" and other loadings. The "Prosperity" loading of 1937 (*see* page 429), which was being paid at rates of between 3s. and 6s. a week according to localities, was standardized at a uniform rate of 5s. a week for all localities and was declared to be an adjustable part of the basic wage, the "War" loadings were declared to be not part of the basic wage, and any other loading declared to be part of the basic wage ceased to be paid as a separate entity.

The new rates operated from the beginning of the first pay-period in December, 1950, in all cases being the rate based on the Court Index (2nd Series) for the September quarter, 1950 plus a flat-rate addition of £1, together with the standardized "Prosperity" loading of 5s. The new basic wage rate for the six capital cities (weighted average) was £8 2s. comprising £6 17s. Court (2nd Series) plus 5s. uniform "Prosperity" loading plus the £1 addition.

* *Commonwealth Arbitration Reports*, Vol. 44, pp. 47-8.

† 68 C.A.R., p. 698.

The declaration provided that the whole of this basic wage would be subject to automatic quarterly adjustments as from the beginning of the first pay-period commencing in February, 1951, on the basis of the index numbers for the December quarter, 1950. For this purpose the new rate of £8 2s. was equated to the "C" Series retail price index number 1572 for the six capital cities (weighted average) for the September quarter, 1950. From this equation was derived a new "Court" Index (Third Series) with 103.0 equated to 1,000 in the "C" Series Index.

The basic wage rates operative from the beginning of the first pay-period commencing in December, 1950 were as follows (rates operative in November, 1950 in parentheses):—Sydney, £8 5s. (£7 6s.); Melbourne, £8 2s. (£7 3s.); Brisbane, £7 14s. (£6 15s.); Adelaide, £7 18s. (£6 17s.); Perth, £8 (£6 19s.); Hobart, £8 (£6 19s.); Six Capitals, £8 2s. (£7 2s.). Further particulars of the judgment may be found in *Labour Report* No. 39, page 81.

(viii) *Basic Wage and Standard Hours Inquiry*, 1952–53. On 5th August, 1952, the Commonwealth Court of Conciliation and Arbitration began hearing claims by—

- (1) The Metal Trades Employers' Association and other employers' organizations that (a) the basic wage for adult males be reduced; (b) the basic wage for adult females be reduced; (c) the standard hours of work be increased; (d) the system of adjusting the basic wages in accordance with variations occurring in retail price index numbers be abandoned.
- (2) The Metal Trades Federation, an association of employees' organizations, that the basic wage for adult males be increased, which would also have resulted in increasing the amount, though not the proportion it bore to the basic wage for adult males, of the basic wage for adult females.

A number of Governments, organizations and other bodies obtained leave to intervene and in this role the Australian Council of Trade Unions supported the claims of the Metal Trades Federation.

The decision of the Court, announced on 12th September, 1953, was as follows:—the employers' applications for reduction of the basic wages for adult males and females and for an increase of the standard hours of work were refused; the employers' applications for omission or deletion of clauses or sub-clauses providing for the adjustment of basic wages were granted; and the unions' applications for increases of basic wages were refused.

The Court in the course of its judgment said that nothing had been put before it during the inquiry in support of a departure from its well-established principle that the basic wage should be the highest that the capacity of the community as a whole could sustain. If the Court is at any time asked to fix a basic wage on a true needs basis, the question of whether such a method is correct in principle and all questions as to the size of the family unit remain open.

In order to remove certain misconceptions about its function, the Court stated that it was neither a social nor an economic legislature, and that its function under section 25 of the Act was to prevent or settle specific industrial disputes. However, these must be settled upon terms which seem just to the Court, having regard to conditions which exist at the time of its decision.

The Court intimated that time would be saved in future inquiries if the parties to the disputes, in discussing the principle of the "capacity to pay", directed their attention to the broader aspects of the economy, as indicated by a study of employment, investment, production and productivity, overseas trade, overseas balances, the competitive position of secondary industry and retail trade.

In accordance with its decision to abolish the automatic adjustment clause from its awards, the Court, commencing on 21st October, 1953, amended all awards listed before it as a result of applications by one of the parties to the awards. Afterwards the Court, on its own motion under section 49 of the Commonwealth Conciliation and Arbitration Act, listed those awards not the subject of an application by one of the parties and then proceeded to delete the clauses providing for the automatic adjustment of the basic wage.

The power of the Commonwealth Court of Conciliation and Arbitration to vary awards not the subject of an application by one of the parties was unsuccessfully challenged in the High Court of Australia.

For further particulars of the judgment see *Labour Report* No. 46, page 64.

(ix) *Basic Wage Inquiry*, 1956. On 14th February, 1956 the Commonwealth Court of Conciliation and Arbitration commenced hearing an application by the Amalgamated Engineering Union and others made by summons for alteration of the basic wage prescribed in the Metal Trades award in the following respects:—namely, for an increase in the basic wage to the amount it would have reached if automatic quarterly adjustments deleted by the Court in September, 1953 had remained in force; an increase of a further £1 in the basic wage; the re-introduction of automatic quarterly adjustments; and the abolition of what is known as the 3s. country differential. This application was regarded as a general application for variation of the basic wage in all awards of the Commonwealth Court of Conciliation and Arbitration.

All the claims made by the unions were opposed by the respondent employers. The Commonwealth Government appeared not as a party to the dispute but in the public interest and supplied much factual and statistical material in a review of the economy from 1953. However, the Commonwealth opposed the re-introduction of automatic adjustments. The States of New South Wales, Queensland, Western Australia and Tasmania supported the unions' claims for the re-establishment of the system of automatic adjustments and the raising of the basic wage to the levels indicated by the current "C" Series index numbers, but the State of South Australia opposed these claims. The State of Victoria neither supported nor opposed the unions' claims.

The judgment was delivered on 26th May, 1956. The Court rejected each claim made by the unions but decided to increase the adult male basic wage by 10s. a week, payable from the beginning of the first pay-period in June. As a result of this decision, the basic wage for adult females was increased by 7s. 6d. a week with proportionate increases for juniors of both sexes and for apprentices.

The Court took the view that its decision in 1953 to abandon the system of quarterly adjustments was clearly right and that "so long as the assessment of the basic wage is made as the highest which the capacity of the economy can sustain, the automatic adjustment of that basic wage upon price index numbers cannot be justified, since movements in the index have no relation to the movements in the capacity of the economy".* The Court was satisfied "that a basic wage assessed at the highest amount which the economy can afford to pay cannot in any way be arrived at on the current price of listed commodities. There is simply no relationship between the two methods of assessment".†

"The Court's examination of the economy and its indicators—employment, investment, production and productivity, overseas trade, overseas balances, the competitive position of secondary industry and retail trade—and its consideration of inflation and its possible disastrous extension has led to the Court's conclusion that the nation now has not the capacity to pay a basic wage of the amount to which automatic quarterly adjustments would have brought it".‡

In the course of setting out the reasons for its decision the Court considered the period over which the capacity of the economy should be assessed, and concluded: "A year has been found almost universally to be a sensible and practicable period for such a purpose in the case of trading institutions the world over. The Court considers—fortified by the Judges' experience of considering from time to time Australia's capacity—that a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate. We would encourage any steps to have the Court fulfil such a task each year . . .".§

For further details see *Labour Report* No. 46, page 67.

(x) *Basic Wage Inquiry*, 1956–57. On 13th November, 1956 the Commonwealth Conciliation and Arbitration Commission in Presidential Session commenced to hear claims for alteration of the basic wage prescribed in the Metal Trades Award. The claims made were as follows:—

1. "For the increase of the basic wage in all its manifestations to the amount it would have reached if there had remained in the award provisions for automatic quarterly adjustments, which had been deleted in September, 1953"

* *Commonwealth Arbitration Reports*, Vol. 84, p. 175.

† *Ibid.*, p. 176.

‡ *Ibid.*, p. 177.

2. " For the re-insertion in the award of the provisions for the automatic quarterly adjustment of the basic wage"*

In accordance with past practice this application in respect of the Metal Trades Award was treated by the Commission as a general application for alteration of the basic wage in all Federal awards.

The unions claims were opposed by the respondent employers. The Australian Council of Salaried and Professional Associations intervened in support of the applicant unions. Victoria and South Australia were the only States to appear before the Commission and the Attorney-General of the Commonwealth intervened in the public interest.

Victoria neither supported nor opposed the application by the unions. South Australia opposed the unions' claims and suggested that, if an increase in the basic wage were granted, the Commission should decide on the increase to be added to the six capitals basic wage and then apportion that increase amongst the six capital cities on a basis accurately reflecting the differences in their cost of living.

The Commonwealth opposed the restoration of the automatic adjustment system, whatever index were used for this purpose.

The Commission decided that before it could reach a decision it would have to examine, in detail, three main issues, namely: (i) should the system of automatic adjustment be restored? (ii) should there be an increase in the basic wage, and, if so, of what amount? and (iii) should the increase, if there be one, be of a uniform amount, or should it be variable as between capital cities?

(i) *Should the System of Automatic Adjustment be Restored?* After hearing submissions by counsel for the unions that automatic quarterly adjustments of the basic wage should be restored and argument as to the appropriateness of using the "C" Series index for this purpose, the Commission reaffirmed the decision of the Court in 1953, which, it said, "was primarily based on the view that there is no justification for automatically adjusting in accordance with a price index a wage assessed as the highest that the capacity of the community as a whole can sustain."† Accordingly, the claim for restoration of automatic quarterly adjustments was refused.

(ii) *Should there be an Increase in the Basic Wage and, if so, of what Amount?* The Commission reaffirmed the principles used to determine the basic wage in the 1953 and 1956 judgments of the Court and accepted as correct the decision of the Court in 1956 to increase the then existing basic wages by 10s. This led the Commission to a comparison of the state of the national economy at the time of the 1956 and 1957 basic wage inquiries.

The Commission, having considered all aspects of the state of the economy, decided that the basic wages in Federal awards should be increased and that the increase to the six capital cities basic wage should be 10s. a week for adult males.

(iii) *Should the Increase be of a Uniform Amount?* The historical background of differential rates of basic wage for respective cities and towns was examined by the Commission and it acknowledged that the Federal basic wage had two components. The first and greater component differed for each capital city and represented a rate of wage calculated by the use of "C" Series retail price index numbers for the June quarter, 1953 and the second component, common to all places, was the uniform 10s. awarded by the Court in 1956.

On the question of whether the increase should be of a uniform amount the alternative open to the Commission appeared to be either to follow what the Court did in 1956, or to recalculate the inter-capital-city differentials of the newly-fixed standard basic wage according to the latest "C" Series index numbers. The Commission decided to grant an increase of a uniform amount.

In the judgment delivered on 29th April, 1957, the Commission rejected the claims made by the unions and granted a uniform increase of 10s. a week in the basic wage for adult males to come into effect from the first pay-period to commence on or after 15th May, 1957.

* Print No. A5436, p. 3.

† Ibid., p. 9.

As a result of this decision the basic wage for adult females was increased by 7s. 6d. with proportionate increases for juniors of both sexes and for apprentices. The Commission also advised that it approved an annual review of the basic wage and would be available for this purpose in February, 1958. However, although favouring an annual review of the basic wage, the Commission considered that "it would not be proper for it nor would it wish to curtail the existing right of disputants to make an application at whatever time they think it necessary to do so".*

A more detailed summary of the judgment may be found in *Labour Report* No. 46, pages 68-71.

(xi) *Basic Wage Inquiry*, 1958. On 18th February, 1958, the Conciliation and Arbitration Commission, constituted in Presidential Session, commenced hearing an application by respondent unions for the following variations of the existing Metal Trades Award, namely:—

"By increasing the amounts of basic wage prescribed therein for respective cities, towns and localities to the figure they each would have reached had the quarterly adjustment system based on the "C" Series retail price index numbers been retained, plus an addition of 10s. to each basic wage, and by making provision for future adjustment of each of the new amounts at quarterly intervals by the application thereto of the same index numbers."†

The claims for the restoration of quarterly adjustments and for basic wage increases were opposed by private employers and by the State of South Australia, which also contended that as the cost of living was much lower in Adelaide than in Melbourne and Sydney, greater disparities in basic wage rates than then existed should be determined if, against its submission, any general increase in the basic wage were decided upon. Tasmania, the only other State represented, made no submissions.

The Attorney-General of the Commonwealth intervened in the public interest under section 36 (1) of the Conciliation and Arbitration Act and leave to intervene was granted to the Professional Officers' Association of the Commonwealth Public Service, three other organizations of medical and scientific workers employed in the Commonwealth Public Service and the Australian Council of Salaried and Professional Associations.

In its judgment, delivered on 12th May, 1958, the Commission rejected the submission by counsel for the Professional Officers' Association "that if the Commission is satisfied that there is in the community capacity to pay a higher wage bill, consideration should be given to the question whether that increased capacity should be reflected in an increased basic wage only or extended also to the marginal or secondary contents of aggregate wages and salaries".‡ The Commission also rejected the submission by counsel for the Australian Council of Salaried and Professional Associations that when the Commission looked at the capacity of industry to pay and gave an increase in the basic wage, it "always kept something in hand for a marginal claim which would probably be coming up".§

The claim of the unions for the restoration of the 1953 basic wage standard was rejected by the Commission on the same grounds as in its 1957 judgment, i.e., that it was unsafe to assume that the economy could sustain the 1953 rate as a "standard" in real terms.

The Commission then considered the three specific issues before it, namely, (i) should the system of automatic adjustments be restored? (ii) should the basic wage be increased, and if so, by what amount? and (iii) should there be uniform or disparate increases?

(i) *Should the System of Automatic Adjustments be Restored?* Counsel for the unions submitted that the unions still regarded the "C" Series index as a proper guide for the determination of basic wage levels but that if this contention were unacceptable to the Commission, as it had been in the three previous inquiries, there should be an immediate decision upon principle and later, if need be, an inquiry in an effort to ascertain a proper price index. He also submitted that there should be from time to time, additions to wages to afford to workers their proper share of increased productivity and efficiency and that although the unions had never claimed that increments for increased productivity could under present circumstances be made by way of automatic adjustment, the objective of wage increases commensurate with price increases could best be achieved by the use of an automatic adjustment system.

* Print No. A5436, p. 23.

† Print No. A6079, p. 4.

‡ Ibid., p. 5.

§ Ibid., p. 7.

After having considered the submissions and without hearing arguments against the proposition, the Commission, on 21st February, 1958, rejected the application for the restoration of automatic adjustments and for a deferred inquiry thereon.

In the reasons for its judgment the Commission stated that there was nothing in the submission to justify a departure from the decisions of 1953, 1956 and 1957 to reject automatic wage adjustments. The Commission also again expressed the opinion that a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate.

(ii) *Should the Basic Wage be Increased and, if so, by what amount?* After hearing arguments for and against an increase in the basic wage rates, and submissions, mainly statistical, on behalf of the Commonwealth, the Commission was unanimously of the opinion that the position of the economy regarded as a whole was such as to justify an increase in the basic wage, but a difference of opinion existed as to what the amount of the increase should be.

A majority of the members, namely, Kirby C.J. and Gallagher J., considered that it was undesirable in the interests of all to grant an increase higher than 5s.; Wright J., on the other hand, considered that a basic wage level substantially higher than that proposed by the majority was justified.

Under section 68 of the Conciliation and Arbitration Act 1904-1956, the question was decided according to the decision of the majority. Accordingly the decision of the Commission was that the rates of basic wage for adult males under Federal awards should each be increased by 5s. a week.

(iii) *Uniform or Disparate Increases?* The South Australian Government submitted that economically there was no scope at all for a basic wage increase anywhere in Australia; and, as in the 1957 inquiry, again pursued the question of inter-city differentials in those awards where it applied, as an answer to the union claim that the amount of the basic wage in Adelaide should be calculated by reference to the "C" Series retail price index numbers for that city. The substance of the State's case on inter-city differentials was that the actual cost of living was so much lower in Adelaide than in Melbourne and Sydney that greater disparities in basic wage rates than then existed should be determined by the Commission, if any general increase in the basic wage were decided upon. Subject to a stipulation that no reduction should be made in the existing basic wage rate for Adelaide, counsel for the South Australian Government claimed that the rate should be approximately 10 per cent. below the rate fixed for Sydney instead of approximately 5 per cent. below, as it then was.

He also claimed that the proposal had the support of South Australian employers, but in the Commission's view the employers had not spoken unitedly or unanimously, nor had anyone supported the proposal as put to the Commission. It concluded that the claim must be rejected on the ground that it would not be wise or just to apply it in South Australia in view of the fact that it was neither sought nor supported by any other party, and its application to the Government and its instrumentalities alone was not sought.

The Commission indicated that the issues involved in inter-city differential wage rates were complex and could not be decided after a brief hearing.

In the judgment delivered on 12th May, 1958, the decisions of the Commission were given in the following terms:—

- "1. The claim for restoration of automatic quarterly adjustments is refused.
2. The claim of the South Australian Government for special treatment is refused.
3. The basic wages of adult male employees covered by Federal awards will be increased by a uniform amount of 5s. per week.
4. The new rates will come into effect from the beginning of the first pay-period commencing on or after 21st May instant subject to special cases." *

As a result of this decision the basic wage for adult females was increased to 75 per cent. of the new basic wage for adult males with proportionate increases for juniors and apprentices of both sexes.

(xii) *Basic Wage Inquiry*, 1959. On 24th February, 1959, the Conciliation and Arbitration Commission, constituted in Presidential Session by Kirby C.J. (President), Foster and Gallagher J.J. (Deputy Presidents), commenced hearing an application by respondent unions for the following variations of the existing Metal Trades Award, namely:—

“By increasing the amounts of basic wage prescribed therein for respective cities; towns and localities to the figure they each would have reached had the quarterly adjustment system based on the “C” Series retail price index numbers been retained, plus an addition of 10s. to each basic wage, and by making provision for future adjustment of each of the new amounts at quarterly intervals by the application thereto of the same index numbers.”*

A large number of applications for similar variation of other awards were ordered to be treated as involved in the inquiry and as such to be decided upon the evidence, material and submissions made from the beginning of the hearing.

The application of the unions was opposed by private employers generally, and by the State of South Australia and two of its instrumentalities.

Tasmania was the only other State represented and it appeared in support of the application of the unions in regard to the increase of the basic wage to the amount it would have reached had the adjustment system been retained and the restoration of that system.

Counsel for the Attorney-General of the Commonwealth, who intervened pursuant to his statutory right, submitted on behalf of the Commonwealth that the application for restoration of the automatic adjustment system should be refused. The Commonwealth again supplied for the benefit of the Commission and the parties, economic and statistical information and material. In addition, the Commonwealth, without making a particular submission as to whether there should be an increase, made a general submission on the state of the national economy.

The Australian Council of Salaried and Professional Associations was granted leave to intervene, and submissions were also presented on behalf of fixed income earners and pensioners generally.

Counsel for the employers also appeared for The Graziers Association of New South Wales and other organizations of employers in the pastoral industry to reduce the basic wage in the Pastoral Award, 1956, by £1 5s., being the aggregate amount of the increases granted by the Court in 1956 and the Commission in 1957 and 1958. The Commission decided to join these applications in the main hearing on 17th March, 1959, as a matter of procedure only and without deciding affirmatively that the Commission as constituted for that hearing had power to grant them in whole or in part. At the conclusion on 5th May, 1959, of submissions in support of these applications and without calling upon counsel for the Australian Workers' Union in reply, the Commission stated that it would reject the applications for reduction of the basic wage in the Pastoral Award and again indicated that the question of jurisdiction as to whether the Commission had the power to decide a different basic wage remained “undecided and open.”

On 5th June, 1959, the three Judges delivered separate judgments. On the question of whether the system of automatic quarterly adjustments should be restored the members of the Commission were divided in opinion and therefore the question was decided in accordance with the decision of the majority. The majority decision, namely, that of Kirby C.J. and Gallagher J., was that the claim of the unions for restoration of the said system should be refused. Foster J. dissented.

The members of the Commission were unanimous in the opinion that there should be an increase in the basic wage but as to the amount of the increase they were divided in opinion as follows:—

The President, Kirby C.J., was of opinion that the increase should be 15s. a week added to each basic wage for adult males in the awards concerned and that the increased basic wage should become payable as from the beginning of the first pay-period commencing on or after 11th June, 1959.

* Print No. A6618, pp. 4 and 5.

Foster J. was of opinion that the increase should be 20s. a week, payable as to 10s. as from the first pay-period in July, 1959 and as to the balance by increases of 2s. 6d. for four quarters commencing 1st January, 1960.

Gallagher J. was of opinion that the increase should be one of 10s. a week and that the increased wage should become payable as from the date chosen by the President.

Foster J., while holding his opinion, decided to concur in the decision proposed by the President.

A summary of the separate reasons for judgment is set out in the following paragraphs.

Kirby C.J. The President said that apart from the question of the basic wage in the pastoral industry, which had already been decided, there were two issues for the Commission's decision:—(i) should the automatic adjustment system be restored? (ii) should the basic wage in the Commission's awards generally be increased and, if so, by what amount?

(i) *Should the Automatic Adjustment System be Restored?* On this question the President stated that in his view nothing had been put at the inquiry which would justify a restoration of the system, and the decisions against the retention or restoration of the system made by the Court in 1953 and 1956 and by the Commission in 1957 and 1958 were correct. He said "I have come to this conclusion on the material and submissions before the Commission at this hearing and quite independently of the admitted shortcomings since 1953 of the 'C' Series index. I would emphasize that the annual review of the amount of the basic wage by a presidential session of this Commission is a substitute in every way for arbitrary adjustment by an index which has to do with one factor only of the many making up the economy. Its aim in practice as well as theory is to fix a basic wage at the highest amount the economy can afford to pay A period of one year—in the absence of exceptional circumstances calling for a different period—remains in my view the ideal period between reviews of the basic wage".* He considered that assessment of the many factors making up national economic capacity proves difficult enough when assessing a money sum, and that the difficulties of assessment of these many factors would be increased immeasurably if the task were to add a fluctuating sum to an already fluctuating wage even if the task were to be undertaken at longer intervals. The President also stated "I wish to make it clear that my rejection of the adjustment system is based not on the imperfections of the available indexes but on the system's intrinsic demerits when compared with a system based on judgment of all factors of the economy including judgment on the movement of prices".†

(ii) *Should the basic wage be increased and, if so, by what amount?* The President considered various indicators of the state of the economy and said that they justified a basic wage increase of a not insignificant amount. He agreed that the worker was entitled to an increase in the basic wage because of increased productivity but he could not agree that on the available material the growth of productivity could be accurately measured or that basic wage increases were the only or main means of ensuring the worker his share of the fruits of increased productivity. Nevertheless, he felt that some allowance should be made for the growth of productivity in assessing an increase in the basic wage. After considering all the material before the Commission and the submissions made on behalf of the parties, he was of opinion that the basic wage should be increased by 15s. a week.

Foster J. Foster J., in considering the powers and functions of the Commission and the form of the inquiry, stated ". if, as is my view, these 'inquiries' no longer have, and should never have had, the character of litigation, then it is proper to consider whether the 'inquiry' in the form it now has is adequate to achieve its avowed function".‡ He referred to some of the powers and duties entrusted to the Commission which revealed and emphasized the extraordinary differences between the Commission and a traditional court of law. He considered that although the Commission "gets two points of view placed before it, elaborately discussed and tested by questioning, the matters for the Commission's determination are far wider than the particular points of view of the interests which assume the roles of contestants before us".§ In his view, the data made available by the Commonwealth Government, as intervener, are in effect the foundations of the opinions and conclusions of all the expert witnesses as well as of all the contentions of the representatives of the various contestants, and it must be upon this

* Print No. A6618, p. 6.

† Ibid., p. 8.

‡ Ibid., p. 25.

§ Ibid., p. 27.

material and interpretation that the Commission ultimately bases its decision. He suggested that "experts in consultation with the Commission in the presence of representatives of the economic interests concerned might well bring far more satisfactory results than a proceeding modelled misleadingly upon a civil action at law".*

Foster *J.* stated that the purpose of the inquiry was to fix a money sum for a basic wage which, at the time of its pronouncement, would represent a standard of living which the Commission finds to be within the capacity of the economy to sustain throughout the period it determines for the duration of its award. For this reason he considered that the basic wage should be automatically adjustable at quarterly intervals. As to whether such adjustment should be made by the application of a price index, he said that "A price index does enable the standard of living prescribed by the Commission to be maintained, and it does prevent the wage determined upon a capacity basis from falling below or rising above that ascertained capacity. It prevents the defeat of the Commission's award and is, in my opinion, the only satisfactory method of preventing that award from becoming to some extent illusory and potentially mischievous".† In his view, the decision in 1953 to abandon the quarterly adjustment system was wrong.

Foster *J.* was of opinion that the basic wage should be increased so as to restore, in part at least, the standard of living awarded in 1950 and maintained by quarterly adjustments until 1953 and to secure to the basic wage earner some share of the increased productivity of the community. The amount of the increase would depend on whether or not the quarterly adjustment system were to be restored. If it were restored, the increase in the basic wage should be 16s. a week payable at the first pay-period in July, 1959, adjustable quarterly by the "C" Series index, the first adjustment to be for the quarter ending 30th June, 1959. If quarterly adjustments were not restored, the ultimate increase should be 20s. a week, the amount of the increase to be spread over a period of eighteen months, payable as to 10s. as from the first pay-period in July, 1959, with an increase of 2s. 6d. on each of the first pay-periods in January, April, July and October, 1960.

In giving his reasons for the proposed increase, Foster *J.* reviewed the indicators of the state of the economy and referred to economic and statistical material submitted by counsel for the Commonwealth, which, he said, "confirms my opinion that the economy, seen at this point of time, is sounder than it was last year, and indeed, in some of the years when the Commission did in fact raise the basic wage".‡

Although reluctant to depart from his views as to the amount of the increase, Foster *J.* decided to concur in the proposed decision of the President, in order that the Commission might reach an effective decision.

Gallagher *J.* On the question of whether there should be a restoration of the quarterly adjustment system, Gallagher *J.* said that he was in complete agreement with Kirby *C.J.*, and with the reasons which the President had given for his conclusion, and added:—"Between December, 1950, and November, 1952, the operation of quarterly adjustments caused the basic wage for Sydney to move from 165s. to 237s. A system which, without any examination of the capacity of the economy to pay, added a sum of £3 12s. weekly to a basic wage in so short a time was quite unsuitable for modern conditions. "§

Gallagher *J.*, after setting out in general terms the arguments of the unions and the employers and summarizing the essentials of the submissions of the Commonwealth, stated that in his opinion the economy of the country was such as would sustain a higher basic wage, but the amount claimed by the unions was too high. In giving reasons for his opinion, he said ". it is almost certainly the position that every male employee in the community who works under an industrial award receives something over and above the basic wage, and in the determination whether he is receiving his proper share of the national wealth. this is a relevant and material matter for consideration".|| In support of this view he quoted pronouncements made in a number of previous basic wage inquiries.

After referring to a number of matters which he considered should be taken into account in the assessment of a basic wage, Gallagher *J.* said "Minded of the general considerations which I have set out, giving due recognition on the one hand to the improved state of the economy and on the other hand to the undoubtedly heavy losses which were suffered by the country because of the combined effect of the 1957 drought and

* Print No. A6618, p. 28. † Ibid., p. 30. ‡ Ibid., p. 37. § Ibid., p. 49. || Ibid., p. 53.

of reduced export prices, and taking into account that amongst the employers who will be called upon to meet basic wage increases are farmers who have recently suffered a big loss of income, I am of the opinion that the sum of ten shillings represents the highest weekly payment which the economy should be called upon to sustain in respect of an increase of each basic wage for adult males covered by relevant awards or agreements".*

He then proceeded to state briefly his reasons for rejecting the application for a lower basic wage in the pastoral industry. He was of the opinion that "it would in the absence of the most exceptional circumstances be wholly undesirable and against the interests of industrial peace that there should be for employees in the rural industries a basic wage lower than that which is prescribed for other employees".*

(xiii) *Basic Wage Inquiry*, 1960. Particulars of the claims made by employee organizations and the decision given will be found in the Appendix.

(xiv) *Rates Operative, Principal Towns*. The basic wage rates of the Commonwealth Conciliation and Arbitration Commission for adult males and females, operative as from the beginning of the first pay-period commencing on or after 11th June, 1959, were as shown in the following table:—

COMMONWEALTH BASIC WAGE: WEEKLY RATES (a), JUNE, 1959.

City or Town.	Rate of Wage.		City or Town.	Rate of Wage.	
	Males.	Females.		Males.	Females.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
New South Wales—			Western Australia—		
Sydney ..	14 3 0	10 12 0	Perth ..	13 16 0	10 7 0
Newcastle ..	14 3 0	10 12 0	Kalgoorlie ..	14 3 0	10 12 0
Port Kembla—			Geraldton ..	14 9 0	10 16 6
Wollongong ..	14 3 0	10 12 0	Five Towns ..	13 17 0	10 7 6
Broken Hill ..	14 7 0	10 15 0			
Five Towns ..	14 2 0	10 11 6	Tasmania—		
Victoria—			Hobart ..	14 2 0	10 11 6
Melbourne ..	13 15 0	10 6 0	Launceston ..	13 18 0	10 8 6
Geelong ..	13 15 0	10 6 0	Queenstown ..	13 13 0	10 4 6
Warrnambool ..	13 15 0	10 6 0	Five Towns ..	14 0 0	10 10 0
Mildura ..	13 15 0	10 6 0			
Yallourn(b) ..	14 1 6	10 11 0	Thirty Towns ..	13 16 0	10 7 0
Five Towns ..	13 15 0	10 6 0	Six Capital Cities	13 16 0	10 7 0
Queensland—			Northern Territory—		
Brisbane ..	12 18 0	9 13 6	Darwin ..	14 15 0	11 1 0
Five Towns ..	12 19 0	9 14 0	South of 20th Parallel ..	14 2 0	10 11 6
South Australia—			Australian Capital Territory—		
Adelaide ..	13 11 0	10 3 0	Canberra ..	13 18 0	10 8 6
Whyalla and Iron Knob(c) ..	13 16 0	10 7 0			
Five Towns ..	13 10 0	10 2 6			

(a) Operative from the beginning of the first pay-period commencing on or after 11th June, 1959; female rates are 75 per cent. of male rates. (b) Melbourne rate plus 6s. 6d. loading for males; 75 per cent. of male rate for females. (c) Adelaide rate plus 5s. for males; 75 per cent. of male rate for females.

The rate for provincial towns, other than those mentioned above, is 3s. less than that for their respective capital cities.

The following table shows the movements of this wage in all State capital cities and the six capital cities as a whole during the period 1939 to 1959.

BASIC WAGE: WEEKLY RATES^(a), CAPITAL CITIES, PRESCRIBED BY COMMONWEALTH CONCILIATION AND ARBITRATION COMMISSION ^(b) FOR ADULT MALES.

Date Operative. ^(c)	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
September, 1939 ..	81 0	81 0	76 0	78 0	77 0	77 0	79 0
November, 1941 ..	89 0	88 0	84 0	84 0	85 0	85 0	87 0
" 1942 ..	97 0	97 0	91 0	93 0	91 0	92 0	95 0
" 1943 ..	99 0	98 0	93 0	94 0	94 0	95 0	97 0
" 1944 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
" 1945 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
" 1946 ..	101 0	99 0	94 0	95 0	95 0	97 0	98 0
December, 1946 ..	108 0	106 0	101 0	102 0	102 0	103 0	105 0
November, 1947 ..	112 0	109 0	105 0	106 0	106 0	107 0	109 0
" 1948 ..	122 0	120 0	115 0	116 0	116 0	118 0	119 0
" 1949 ..	132 0	130 0	125 0	126 0	129 0	128 0	129 0
" 1950 ..	146 0	143 0	135 0	137 0	139 0	139 0	142 0
December, 1950 ..	165 0	162 0	154 0	158 0	160 0	160 0	162 0
November, 1951 ..	207 0	199 0	185 0	195 0	197 0	199 0	200 0
" 1952 ..	237 0	228 0	216 0	229 0	228 0	230 0	231 0
August, 1953 ^(d) ..	243 0	235 0	218 0	231 0	236 0	242 0	236 0
June, 1956 ..	253 0	245 0	228 0	241 0	246 0	252 0	246 0
May, 1957 ^(e) ..	263 0	255 0	238 0	251 0	256 0	262 0	256 0
May, 1958 ^(f) ..	268 0	260 0	243 0	256 0	261 0	267 0	261 0
June, 1959 ^(g) ..	283 0	275 0	258 0	271 0	276 0	282 0	276 0

(a) Rates include prosperity loadings where applicable. (b) Prior to 30th June, 1956, Commonwealth Court of Conciliation and Arbitration. (c) Rates operative from the beginning of the first pay-period in the month indicated, unless otherwise stated. (d) Automatic adjustment discontinued (see p. 431). (e) Operative from the beginning of the first pay-period commencing on or after 15th May, 1957. (f) Operative from the beginning of the first pay-period commencing on or after 21st May, 1958. (g) Operative from the beginning of the first pay-period commencing on or after 11th June, 1959.

A table showing Commonwealth basic wage rates from 1923 to 1959 was published in *Labour Report* No. 46, pages 194-7.

3. **Australian Territories.**—In the Northern Territory there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the "Darwin" rate, and the other in respect of areas south of that parallel and extending down to the 26th parallel (the "Port Augusta" rate).

The basic wage rates payable as from the beginning of the first pay-period commencing on or after 11th June, 1959, were:—"Darwin" rate, adult males, £14 15s., adult females, £11 1s.; "Port Augusta" rate, adult males, £14 2s., adult females, £10 11s. 6d.

In addition to the above rates, special loadings were prescribed in Northern Territory awards following the fixation of the basic wage rates operative from November, 1951.

In the Australian Capital Territory, the rates payable as from the beginning of the first pay-period commencing on or after 11th June, 1959, were £13 18s. for adult males and £10 8s. 6d. for adult females.

Further details of basic wage rates in the Northern Territory and the Australian Capital Territory may be found in *Labour Report* No. 46, pages 81-7.

4. **Basic Wage Rates for Females.**—Reference should be made to *Labour Report* No. 46, (pp. 75-81) for an account of the fixation of minimum rates and basic wages for adult females by the Commonwealth Court of Conciliation and Arbitration. At the end of the 1949-50 Basic Wage Inquiry the Commonwealth Court of Conciliation and Arbitration, by a majority decision, fixed the basic weekly wage for adult females at 75 per cent. of the corresponding male rate from the beginning of the first pay-period commencing in December, 1950. This percentage has continued to be prescribed in subsequent inquiries.

5. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard “living” wage for adult male employees was made on 16th February, 1914, by the Court of Industrial Arbitration. A Board of Trade established in 1918, with power to determine the “living” wage for adult male and female employees in the State, made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 transferred its powers to the Industrial Commission of New South Wales as from 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. However, with the adoption in 1937 of the Commonwealth basic wage, the identification of a specified family unit with the basic wage disappeared.

A table showing the variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937, was published in earlier issues of the Official Year Book (*see* No. 37, page 481). From that date until November, 1955, the rates adopted followed the Commonwealth basic wage (*see* below).

Shortly after the Commonwealth Court of Conciliation and Arbitration announced its judgment in the 1937 Basic Wage Inquiry, the Government of New South Wales amended the Industrial Arbitration Act to make the State basic wage agree with the Commonwealth rate ruling in New South Wales, and to adopt, as far as practicable, the general principles of operation laid down by the Commonwealth Court.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age was operative in New South Wales from July, 1927, until superseded by the Commonwealth Government Scheme operative from 1st July, 1941. A brief account of the main features of the system was given in Official Year Book No. 37, pages 485–6.

Further amendments to the Industrial Arbitration Act were made in 1950 to give effect to the new rates declared by the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry.

Differential basic wage rates for country areas (except Broken Hill) and for employees under Crown awards were eliminated by an amendment of the Industrial Arbitration Act in 1951.

The decision of the Commonwealth Court of Conciliation and Arbitration in September, 1953, to discontinue the system of automatic adjustment of the basic wage consequent on changes in the “Court” Series retail price index numbers was considered by the New South Wales Industrial Commission. On 23rd October, 1953, it certified that there had been an alteration in the principles of fixation of the basic wage, and instructed that the automatic adjustment clause be deleted from awards, etc., within its jurisdiction.

As a result, the basic wages applicable for the State and operative from the beginning of the first pay-period commencing in August, 1953, remained unchanged until November, 1955, the rates for New South Wales (excluding Broken Hill) during this period being £12 3s. a week for adult males and £9 2s. for adult females.

In October, 1955, the Industrial Arbitration Act 1940–1955 was amended to provide for the automatic adjustment of the existing basic wage each quarter, in accordance with the movements in the Commonwealth Statistician’s retail price index numbers. The first adjustment, based on the index number for the September quarter, 1955, represented the amount which would have been added to the basic wage if quarterly adjustments had not been suspended, and was made payable from the beginning of the first pay-period in November, 1955. The rates then payable were £12 13s. for adult males and £9 9s. 6d. for adult females.

Automatic quarterly adjustments were made for each subsequent quarter and the State basic wage payable in New South Wales (except Broken Hill) from the first pay-period in May, 1960 was £14 5s. for adult males and £10 13s. 6d. for adult females.

The Industrial Arbitration Act was further amended by the Industrial Arbitration (Female Rates) Amendment Act (No. 42, 1958) which became operative on 1st January, 1959. This Act defined the existing basic wage for adult females as being 75 per cent. of the male basic wage. Provision was also made for equal pay for males and females in certain circumstances. Where the Industrial Commission or a Conciliation Committee is satisfied that male and female employees are performing work of the same or a like nature and of equal value, they shall prescribe the same marginal or secondary rates of wage. The basic wage for these adult females was prescribed as 80 per cent. of the appropriate basic wage for adult males as from 1st January, 1959. Thereafter, the basic wage is to be increased annually by 5 per cent., so that on 1st January, 1963 it will be the same as that for adult males.

(ii) *Victoria.* There is no provision in Victorian industrial legislation for the declaration of a State basic wage. Wages Boards constituted from representatives of employers, employees and an independent chairman, for each industry group or calling, determine the minimum rate of wage to be paid in that industry or calling. In general, these Boards have adopted a basic wage in determining the rate of wage to be paid.

By an amendment to the Factories and Shops Act in 1934, Wages Boards were given discretionary power to include in their determinations appropriate provisions of relevant Commonwealth Awards. A further amendment to this Act in 1937 made it compulsory for Wages Boards to adopt such provisions of Commonwealth Awards. The 1937 Act, as amended, also gave Wages Boards power to adjust wage rates, "with the variation from time to time of the cost of living as indicated by such retail price index numbers published by the Commonwealth Statistician as the Wages Board considers appropriate". The Wages Boards thus adopted the basic wages declared by the Commonwealth Court of Conciliation and Arbitration and followed that Court's system of adjusting the basic wage in accordance with variations in retail price index numbers.

After the Commonwealth Court of Conciliation and Arbitration discontinued the system of automatic adjustment of the Commonwealth basic wage in September, 1953, a number of Wages Boards met in November, 1953, and deleted references to these adjustments. However, an amendment to the Factories and Shops Act in November, 1953, required Wages Boards to provide for the automatic adjustment of wage rates in accordance with variations in retail price index numbers. From 1st July, 1954, the Factories and Shops Acts 1928-1953 were replaced by the Labour and Industry Act 1953. This was, in general, a consolidation of the previous Acts and retained the requirement providing for the automatic adjustment of wages in accordance with variations in retail price index numbers.

An amendment to the Labour and Industry Act proclaimed on 17th October, 1956, deleted the automatic adjustment provision and directed Wages Boards in determining wage rates to take into consideration relevant awards of, or agreements certified by, the Commonwealth Conciliation and Arbitration Commission. As a result of this legislation the last automatic quarterly adjustment of the basic wage made was based on the variation in retail price index numbers for the June quarter, 1956, and was payable as from the beginning of the first pay-period in August, 1956. Following the judgment of the Commonwealth Conciliation and Arbitration Commission in the 1959 Basic Wage Inquiry (see page 436), Wages Boards met in June and July, 1959 and varied their determinations by incorporating the new Commonwealth rates. The rates for Melbourne, which were still payable in May, 1960, were £13 15s. a week for adult males and £10 6s. for adult females.

(iii) *Queensland.* The first formal declaration of a basic wage (£4 5s. for adult males) by the Queensland Court of Industrial Arbitration was gazetted on 24th February, 1921. Prior to this declaration, the rate of £3 17s. a week for adult males had been generally recognized by the Court in its awards as the basic or living wage. The Queensland Industrial Conciliation and Arbitration Act provides that any basic wage declared must at least maintain an employee, his wife and family of three children in a fair and average standard of comfort.

The rates declared by the Queensland Court at various dates were shown in the table on page 92 of *Labour Report* No. 46.

From 21st April, 1942, the Queensland Industrial Court adopted the practice of making quarterly declarations of the basic wage on the basis of variations in the "C" Series retail price index number for Brisbane.

The Queensland Industrial Court granted increases of 7s. and 5s. to the basic wages for adult males and adult females respectively, payable from 23rd December, 1946, following the "interim" basic wage judgment of the Commonwealth Court of Conciliation and Arbitration announced earlier in December, 1946.

Following the decision of the Commonwealth Court of Conciliation and Arbitration to increase the male and female basic wages from December, 1950, the Queensland Industrial Court conducted an inquiry as to what change, if any, should be made to the State basic wage for Queensland. The Industrial Court granted an increase of 15s. a week to both adult males and adult females, operative from 7th December, 1950. The new male rate was identical with the Commonwealth basic wage for the Brisbane metropolitan area. The basic wage payable to adult females was approximately 66 per cent. of the male rate.

In January, 1953, the Queensland Industrial Court departed from the practice established in 1942 of varying the basic wage in accordance with quarterly variations in the "C" Series of retail price index numbers. If the practice had been continued, a reduction of one shilling would have been made in the basic wage for adult males from

January, 1953. The Court was not satisfied, however, that the movement in the "C" Series index for Brisbane for the December quarter, 1952 was a true representation or reflex of the economic position for Queensland as a whole and so declined to make any alteration to the then existing basic wage. Quarterly adjustments were made for the next four quarters and the basic wage became £11 5s. for adult males from 1st February, 1954.

Commencing in March, 1954, a Basic Wage Inquiry was conducted by the Court and in its judgment of 11th June, 1954, the Court stated that there would be no change in the basic wage rates declared for February, 1954.

At subsequent hearings consequent on the movement in the "C" Series of retail price index numbers for Brisbane in respect of the quarters ended 30th June, 30th September and 31st December, 1954 and 31st March, 1955, the Court again decided not to vary the existing basic wage rates. However, after considering the "C" Series index number for the quarter ended 30th June, 1955 and its relation to the index number for the March quarter, 1955, the Court announced that, as these figures showed a continued upward trend of cost of living in 1955, the basic wage for adult males should be increased from £11 5s. to £11 7s. from 1st August, 1955. In this judgment, the Court emphasized that it holds itself free whether or not to adjust the basic wage upwards or downwards in accordance with movements in the "C" Series retail price index numbers.

The Court examined the movement in the "C" Series retail price index numbers for each subsequent quarter and announced variations in the basic wage. The rates payable in the Southern Division (Eastern District) from 2nd May, 1960, were £13 11s. for adult males and £9 6s. for adult females.

In addition to the basic wage for the Southern Division (Eastern District), which includes Brisbane, adult males in other areas receive district allowances. As from 2nd February, 1959, the allowances have been:—Southern Division (Western District) 10s. 6d., Mackay Division 9s., Northern Division (Eastern District) 10s. 6d., Northern Division (Western District) £1 12s. 6d. The allowances for adult females are half of those for adult males.

(iv) *South Australia.* The Industrial Code, 1920–1958 provides that the Board of Industry shall after public inquiry declare the "living wages" to be paid to adult male and female employees. The Board has power also to fix different rates to be paid in defined areas.

The family unit was not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. a week. A table showing the living wages declared from time to time was published on page 95 of *Labour Report* No. 46.

Following the "interim" increase in the "needs" basic wage of the Commonwealth Court of Conciliation and Arbitration announced on 13th December, 1946, the South Australian Government made a provision in the Economic Stability Act 1946 for the declaration by the Governor of a living wage based on the Commonwealth basic wage for Adelaide. This action was taken because the Board of Industry had made a determination on 5th September, 1946, and under the Industrial Code was not able to make a further determination for six months.

The Industrial Code Amendment Act, 1949 made provision for the quarterly adjustment of the living wage in accordance with the variations in the Commonwealth basic wage for Adelaide. In effect, this made the State living wage and the Commonwealth basic wage equal from the beginning of the first pay-period commencing in February, 1950. The prescribed adjustment to the female living wage was seven-twelfths of that made to the Commonwealth male basic wage. The Board of Industry retained power to amend the living wage but any new living wage was to be adjusted quarterly as above.

Following the decision of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry, the South Australian Industrial Code was amended to provide for declarations of the living wage by proclamation to prevent unjustifiable differences between the State and Commonwealth rates of wage. By proclamation dated 30th November, 1950, the South Australian living wage in the metropolitan area was made identical with the December, 1950, rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia. The female basic wage, which had been approximately 54 per cent. of the male basic wage, was increased to 75 per cent. of the corresponding male rate.

When the Commonwealth Court of Conciliation and Arbitration discontinued quarterly adjustments to Commonwealth basic wages in September, 1953, the South Australian living wage also ceased to be varied quarterly and since that time has remained the same as the Commonwealth basic wage for Adelaide. Following the Commonwealth basic wage inquiries in 1956 and subsequent years, increases were made in the Commonwealth basic wage for adult males, with proportionate increases for adult females. Similar increases were made to the South Australian living wage by proclamation. The rates operative from 15th June, 1959, were £13 11s. for adult males and £10 3s. for adult females. These rates were still operative in May, 1960.

(v) *Western Australia.* The Industrial Arbitration Act 1912–1952 provides that the Court of Arbitration may determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determination shall be made within twelve months of the previous inquiry.

The term "basic wage" is defined in the Act as "a wage which the Court considers to be just and reasonable for the average worker to whom it applies". In determining what is just and reasonable, the Court must take into account not only the "needs of an average worker" but also the "economic capacity of industry" and any other matters it deems relevant.

The Act provides that the Court of Arbitration may make adjustments to the basic wage each quarter if the statement supplied by the State Government Statistician showing the "C" Series retail price index numbers and monetary equivalents in terms of the State basic wages indicates that there has been a variation of 1s. or more a week compared with the previous quarter. These adjustments apply from the dates of declaration by the Court.

The first declaration of the basic wage by the Court of Arbitration, after the authority to fix one was vested in the Court in 1925, was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. Since that date the principal inquiries have been those of 1938, 1947, 1950 and 1951. A table showing annual and special declarations of the basic wage by the Court of Arbitration will be found in *Labour Report* No. 46, page 98.

Following the judgment of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry, the Western Australian Court of Arbitration resumed an inquiry which had been adjourned, to ascertain what change should be made in the State basic wage rates. In its judgment of 7th December, 1950, the Court decided that the basic wage should be increased by £1 a week for adult males and by 15s. a week for adult females. As the result of a subsequent inquiry, the basic wage for adult females was increased from 1st December, 1951 to 65 per cent. of the corresponding male rate. This was subject to the condition that the increase in the basic wage should be offset by the reduction in or deletion of existing margins as specified by the appropriate award or determination.

Following the decision of the Commonwealth Court of Conciliation and Arbitration, in September, 1953, to discontinue quarterly adjustments to Commonwealth basic wages, the Western Australian Court of Arbitration exercised its discretionary power and declined to make any adjustments to the basic wage from November, 1953, to the June quarter, 1955.

However, from 9th August, 1955, the Western Australian Court decided to increase the adult male basic wage by 5s. 11d. a week for Perth and to make corresponding increases for other areas. No further change was announced in the basic wage until January, 1956, and for each subsequent quarter the Court has varied the State basic wages after considering the official statement supplied by the State Government Statistician except in February, 1959 when no change was made.

The rates payable in the metropolitan area as from 2nd May, 1960 were £14 6s. 4d. for adult males and £10 14s. 9d. for adult females.

(vi) *Tasmania.* A State basic wage is not declared in Tasmania. Wages Boards are constituted for a number of industries, from representatives of employers and employees and an independent chairman (who is common to all Wages Boards), and determine the minimum rate of wage payable in each industry. Until February, 1956, these Boards generally adopted the basic wages of the Commonwealth Court of Conciliation and Arbitration in determining the rate of wage to be paid.

The Wages Board Act gives Wages Boards power to adjust their wage rates in accordance with variations in cost of living as indicated by retail price index numbers published by the Commonwealth Statistician. When the Commonwealth Court discontinued the system of automatic adjustments of the basic wage in September, 1953, the Chairman of the Wages Boards stated he was of the opinion that automatic adjustment

clauses should be deleted from all Wages Boards determinations. Before Wages Boards met to consider this matter, the wage rates for all determinations were automatically adjusted upwards from the beginning of the first pay-period commencing in November. By early December, 1953, all Wages Boards had met and deleted the automatic adjustment clause from determinations and cancelled the adjustment increases payable from November.

Automatic quarterly adjustments in accordance with movements in retail price index numbers were reintroduced by Wages Boards in February, 1956 and the rate payable from the first pay-period in February restored the basic wage to the level it would have reached if quarterly adjustments had not been discontinued in 1953. Following a rise in the retail price index number for the March quarter, 1956, a further basic wage increase was payable from the first pay-period in May, 1956.

The Employers' Federation of Tasmania sought a conference under section 77 of the Wages Boards Act 1920-1951 to consider an application to adopt the basic wage promulgated by the Commonwealth Court of Conciliation and Arbitration on 25th May, 1956, and for the deletion of automatic quarterly adjustment of the basic wage from determinations of Wages Boards. As a result of this application, a conference of organized bodies of employers and employees was convened by the Chief Secretary on 22nd June, 1956, to enable a discussion to take place on the advisability or otherwise of adopting the request of the Employers' Federation, so that the Chairman of Wages Boards could be fully informed at a representative gathering prior to the meeting of individual Wages Boards.

At the conclusion of the conference, the Chairman of the Wages Boards stated he was of the opinion that the adjustments should be suspended for a period in an endeavour to achieve some measure of stability. He also indicated that any Wages Board was competent by agreement between the representatives of employers and employees or majority decision to adopt the Commonwealth Court's basic wage or any other method of fixing the basic wage.

The majority of Wages Boards decided to suspend automatic quarterly adjustments after adopting the increase based on retail price index numbers for the June quarter, 1956, and payable from the first pay-period in August, 1956, and wage rates remained unchanged until July, 1959. Following the decision of the Commonwealth Conciliation and Arbitration Commission in June, 1959 to increase the basic wage, Wages Boards met in July, 1959 and incorporated the new rates in their determinations. The rates for Hobart then became £14 2s. for adult males and £10 11s. 6d. for adult females.

(vii) *State Basic Wage Rates.* The "basic" wage rates of State industrial tribunals, operative in May, 1959, and May, 1960, are summarized in the following table:—

STATE BASIC WAGES—WEEKLY RATES.

State.	May, 1959.			May, 1960.		
	Date of Operation. (a)	Males.	Females.	Date of Operation. (a)	Males.	Females.
		s. d.	s. d.		s. d.	s. d.
New South Wales—						
Metropolitan and Country, excluding Broken Hill	May, 1959	276 0	207 0	May, 1960	285 0	213 6
Broken Hill	May, 1959	276 0	207 0	May, 1960	283 0	212 0
Victoria(b)	Aug., 1956	263 0	197 0	(c)	275 0	206 0
Queensland—						
Southern Division (Eastern District), including Brisbane ..	27.4.59	263 0	179 0	2.5.60	271 0	186 0
Southern Division (Western District)	27.4.59	273 6	184 3	2.5.60	281 6	191 3
Mackay Division	27.4.59	272 0	183 6	2.5.60	280 0	190 6
Northern Division (Eastern District)	27.4.59	273 6	184 3	2.5.60	281 6	191 3
Northern Division (Western District)	27.4.59	295 6	195 3	2.5.60	303 6	202 3
South Australia(d)	26.5.58	256 0	192 0	15.6.59	271 0	203 0
Western Australia—						
Metropolitan Area	27.4.59	275 1	178 10	2.5.60	286 4	e214 9
South-West Land Division ..	27.4.59	274 6	178 5	2.5.60	283 1	e212 4
Goldfields and other areas ..	27.4.59	271 6	176 6	2.5.60	278 10	e209 2
Tasmania(b)	Aug., 1956	272 0	204 0	July, 1959(f)	282 0	211 6

(a) Where dates are not quoted wage rates operate from the beginning of the first pay-period commencing in the month shown. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards. (c) During June and July, 1959, Wages Boards varied determinations by adopting the Commonwealth basic wage rate.

(d) The "living wage" declared for the metropolitan area is also adopted for country areas, except at Whyalla where a loading of 5s. a week is generally payable. (e) As from the beginning of the first pay-period commencing in February, 1960 the female basic wage rate was increased from 65 per cent. to 75 per cent. of the male basic wage rate. (f) Wages Boards adopted the Commonwealth basic wage rate from July, 1959.

§ 5. Wage Margins.

1. **General.**—Wage margins have been defined as “ Minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are the skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance ”.*

Prior to 1954, the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the Engineers' Case of 1924, the Merchant Service Guild Case of 1942 and the Printing Trades Case of 1947.

2. **Metal Trades Case, 1954.**—The Amalgamated Engineering Union, the Electrical Trades Union and other employee organizations parties to the Metal Trades Award, 1952, filed applications during 1953 for increased margins for all workers covered by this award.

The applications came on for hearing before J. M. Galvin C.C., who decided that they raised matters of such importance that, in the public interest, they should be dealt with by the Commonwealth Court of Conciliation and Arbitration. On 16th September and 6th October, 1953 the Conciliation Commissioner, pursuant to section 14A of the Conciliation and Arbitration Act, referred these applications to the Court.

The actual claims of the trade unions were that the marginal rate of 52s. a week payable to a fitter in the metal trades should be increased to 80s. a week (86s. for certain electrical trades) with proportionate increases for other award occupations. The margins then current, with a few exceptions, had been in existence since 1947. The employees' claims were in the nature of a test case to determine the attitude of the Court to applications for increased margins.

The Metal Trades Employers' Association and other respondents to the Metal Trades Award had counter-claimed that existing margins for skilled tradesmen should remain unaltered, while those paid to partly skilled or unskilled workers should be reduced.

The Court decided to take the Commissioner's two references together and the matter came on for hearing before the Full Arbitration Court (Kelly C.J., Kirby, Dunphy and Morgan JJ.) in Melbourne on 13th October, 1953.

In a judgment delivered on 25th February, 1954, the Court held that a *prima facie* case had been made for a re-assessment of margins but that the economic situation at that time, particularly in regard to the level of costs, did not permit of such a comprehensive review. The Court decided that to avoid the creation of new disputes, to save expense and to obviate procedural difficulties, it would not reject the claims but adjourn them until 9th November, 1954.

On 25th and 26th August, 1954, summonses were filed by the employees' organizations for orders that proceedings in this case be brought forward and the hearing was resumed on 5th October, 1954.

In a judgment delivered on 5th November, 1954† the Court made an order re-assessing the marginal structure in the Metal Trades Award by, in general, raising the current amount of the margin to two and a half times the amount of the margin that had been current in 1937. However, in cases in which the result of that calculation produced an amount less than the existing margin the existing margin was to remain unaltered. In effect, this decision increased the margins of a fitter from 52s. a week to 75s. a week, increased similarly margins of other skilled occupations, and made no increase in margins of what may generally be described as the unskilled or only slightly skilled occupations under the Metal Trades Award.

At the end of its judgment the Court stated that while its decision in this case related immediately to one particular industry, it was expected to afford general guidances to all authorities operating under the Conciliation and Arbitration Act, or under other legislation which provided for tribunals having power to make references, or being subject to appeal, to the Court, where the wage or salary may properly be regarded as containing a margin. The Court added observations for the guidance of these and of other tribunals “ which may regard decisions of this Court as of persuasive authority ”. Further details were published in *Labour Report* No. 46, 1958, pages 101–8.

3. **Margins Cases, 1959.**—On 25th August, 1959, the Commonwealth Conciliation and Arbitration Commission began considering a number of applications for increases in marginal rates. The Amalgamated Engineering Union and other employee organizations applied for increases in margins in Part I. of the Metal Trades Award. There were also applications by the Association of Architects, Engineers, Surveyors and Draughtsmen of Australia and

* *Commonwealth Arbitration Reports*, Vol. 80, p. 24.

† *Ibid.*, p. 3.

the Federation of Scientific and Technical Workers for variation of the Metal Trades Award, Part II. and of the Aircraft Industry Award, Part II., by the Australian Bank Officials' Association regarding the Bank Officials' Award and by the Australian Workers Union regarding the Gold and Metalliferous Mining Award. Finally there was an application by the Metal Trades Employers' Association and others to reduce rates in the Metal Trades Award. All of these matters were references under Section 34 of the Conciliation and Arbitration Act from the appropriate Commissioner.

During a debate as to whether these matters should be heard together, it became apparent that the applicants in respect of Part II. of the Metal Trades and Aircraft Industry Awards and the Bank Officials' Award desired to ask only for an interim increase in margins at that stage. The employers submitted that the applicants should be required to submit their whole case. The Commission decided to hear all the matters together, permitting the applicants in these three cases to ask first for an interim decision, it being understood that those applicants would have to satisfy the Commission that a case had been made out for an interim increase.

On 27th November, 1959, judgments were delivered in connexion with two of the five cases before the Commission, namely, those concerning margins in the Metal Trades Award Part I. and the Gold and Metalliferous Mining Award. This was done to avoid delay and to give parties to the other three cases the opportunity of making further submissions in the light of the decisions (and reasons for the decisions) in these two cases.

A summary of the Metal Trades Case, Part I., is given in the following paragraphs.

The employee organizations claimed an increase in the margin for the fitter, as set out in the Metal Trades Award, 1952 (i.e., the award as it existed prior to the Metal Trades Case, 1954—see para. 2, page 446), from 52s. to 134s. a week and an increase of 157 per cent. in the margins for other classifications. The employers counter-claimed for a reduction in margins of 15s. a week.

Counsel for the unions put broadly a case that in the proper fixation of margins the basic criteria were the market value at the time of the fixation of the wage and the economic capacity of the economy to pay the wages claimed and he alleged that the 1954 Metal Trades decision had departed from these principles. He produced to the Commission material to demonstrate the economic situation which would justify the increases asked for. He also submitted that the true relativities in the Metal Trades Award should be those created by a combination of the 1947 Full Court decision and the second variation order made in 1947 by G. A. Mooney, C.C.*

The employers adopted the view that no case had been made out for any increase and that there should be wage reductions. They also supplied the Commission with economic material in support of their case that there was no capacity in the community to sustain increased margins and alternatively that any increased economic capacity which may have occurred since 1954 had been exhausted by basic wage fixations.

As to relativities the employers submitted that the 1954 decision should be adhered to and should be carried to its logical conclusion in so far as the lower paid classifications were concerned.

The Attorney-General of the Commonwealth intervened and not only submitted statistical material and an analysis of the economic situation but also assisted the Commission with an exposition of various factors proper to be taken into account in the fixation of margins. In particular, counsel for the Attorney-General emphasized the desirability of flexibility in the workings of the arbitration system.

In the judgment, delivered on 27th November, 1959, the Commission rejected the employers' application to reduce wages under the Metal Trades Award and made an order re-assessing the marginal structure in the award by increasing the existing margins by 28 per cent., the amount of the increase being taken to the nearest 6d. The new margins applied from the beginning of the first full pay-period commencing in December, 1959. The effect of this decision was to increase the margin of the fitter from 75s. to 96s. a week.

The Commission stated that, not having before it the question of work values, and having decided not to alter the 1954 relativities, the increases had been expressed as a percentage of current margins, but this was not to be taken as an endorsement of that method of fixing margins.

In view of the widespread effects of this judgment some extensive extracts from it are given below:—

Functions of the Commission.—"We find it necessary to make a few general remarks about the functions of the Commission in view of some of the submissions which have been made to us . . . The true function of the Commission is to settle industrial disputes. In the settlement of disputes involving payment of wages, such as this one in which such issues have been raised, the Commission will bear in mind the various economic submissions made to it, including those about price rises and inflation; it will also bear in mind the fiscal and economic policies of the Government. It will not ignore the consequences to be expected

* *Commonwealth Arbitration Reports*, Vol. 59, p. 1272.

from its actions but it will not deliberately create situations which would need rectification by Governmental action. It will not use its powers for the purposes of causing any particular economic result apart from altered wages although in the event the decision it makes may have other economic consequences”.

Principles of Marginal Fixation.—“In the discharge of our function of settling the particular disputes before us and as this is the first occasion on which this Commission constituted as a full bench has been called upon to deal with a major case concerning general marginal principles we propose to deal with some of the submissions which have been put to us as to general principles. We would, however, emphasize that we do not regard what we have to say as exhausting the subject of marginal fixations.”

“In our view there is no real reason why a margin should be expressed as a percentage of the basic wage, and it would be unwise to express any margin in that way.

A closely related question is whether margins should be increased merely because of the decreased purchasing power of money since last fixed. We were referred to the 1954 Margins Judgment and other judgments on that point (*see* 80 C.A.R. 1 at pp. 30 and 31 and the judgments there cited). If those judgments do no more than reject the automatic or mathematical approach, that is, reject the proposition that a margin should be fixed merely by multiplying an existing margin by whatever is necessary to make up the decrease in purchasing power of money, we agree with them. If those judgments suggest that the decrease in purchasing power is not a factor to be taken into account at all, we find ourselves unable to agree with them. Whenever a margin is fixed, it is fixed in current money terms and if no account at all is taken of the decreased purchasing power of money since the margin was last assessed, then the fixation would not be a real one. Whenever a margin is under review, some account must be taken of the amount at which the margin was originally fixed and of the decrease in purchasing power of money since then, if in fact it has decreased. Although this concept is capable of being expressed shortly, its application in practice is complicated by the lack of any adequate measure of the decreased purchasing power of money. In arriving at the rates we award we have taken into account the fact that there has been a significant fall in real value of the current margins since they were fixed.”

“The proceedings before us were largely taken up with submissions regarding economic capacity and a question arose whether in these proceedings we should look at the capacity of the economy generally, the capacity of the particular industry or industries covered by the awards in question, or both. Historically it would appear that prior to 1947 it had been the practice, in the Metal Trades industry at least, to look at the economic situation of the industry itself.”

“This seemed to be the approach until 1947 when the Court looked at both the economic capacity of industry generally and the capacity of the particular industry (58 C.A.R. 1088 at p. 1090). It was not until 1954 that the Court considered only the capacity of industry generally and did not concern itself with the capacity of the Metal Trades industry as such. It must be borne in mind that in the 1954 Metal Trades case the Court proceeded to lay down a formula intended, speaking generally, for all industry. In such a context, consideration of the economic position of a particular industry would not be relevant. We do not think it could be said that the economic capacity of a particular industry could not be relevant in a particular case . . . Economic capacity, either generally or in a particular industry, may not be an issue at all in the fixation of margins. In many cases in the past margins have been fixed without consideration of capacity and we see no reason why in appropriate circumstances that practice should not continue.”

“Although this may not be a principle of marginal fixation, we find it convenient here to deal with the submission made by the employers, that even if there had been capacity to pay increased wages, that capacity had been exhausted by basic wage decisions in recent years. In making this submission they relied both on economic material and on statements in the judgments, particularly in the 1958 Basic Wage Judgment (Print A 6079).

We would think it clear that neither the Court nor the Commission has ever talked in terms of “exhausting” the capacity of the economy as far as wages generally are concerned when fixing a basic wage. The reference on p. 8 of the 1958 Basic Wage Judgment to marginal claims refutes any suggestion that in that case the Commission believed it was exhausting the capacity of the economy with its basic wage decision.”

Relativities.—“The Unions sought in these proceedings to have restored the relativities within the marginal structure of the Metal Trades Award which existed prior to the 1954 decision, that is, a combination of the Full Court’s 1947 decision and the second Mooney formula.”

“The employers not only relied on the relativities created in 1937 and confirmed in 1954, except as to the lower paid classifications, but also asked us to take the 1954 relativities to their logical conclusion in our decision in this matter as far as those classifications are concerned.

The difference between margins in an award occurs because the award maker has decided that there is a difference in the amounts to be awarded for skill, arduousness and other like factors proper to be taken into account in fixing a secondary wage. In origin, at least, relativities in margins are merely an expression of relative work values and there is before us no evidence of such present values.

We are therefore in this position. We have the 1954 award, which for the past five years has regulated the relativities of margins in this industry. In these proceedings, the real criterion for relativities, namely, work value, does not fall for decision. We have been asked on the one hand to go behind the 1954 decision and to restore the relativities which that decision changed and on the other hand to extend the reasoning of the 1954 Judgment to margins which the Court was not then prepared to reduce.

In all the circumstances we are not prepared to accede either to the Unions' submissions or to the employers' submission in this regard, and we have accepted the relativities established by the 1954 decision except to the extent necessary to round some of the figures off.

The question of relativities in margins in the Metal Trades Award, based on work value, is thus still open."

Over-Award Payments.—"The question of over-award payments is a complex one. The material before us is fragmentary and incomplete and it contains difficulties because many of the descriptions used were not defined in advance and may mean different things in different places. From the very nature of things it may not be possible to obtain precise and complete information from Union sources. Nevertheless, we feel that the material put before us by the Unions on this occasion, unanswered by evidence from the employers, is helpful to the extent indicated hereafter. The question of what is in fact being paid in an industry has been regarded as a relevant consideration in wage fixation by the Commonwealth Court of Conciliation and Arbitration. It has been regarded as relevant even when the amounts paid were obtained under pressure. See Metal Trades case (37 C.A.R. 176 at p. 182) and Bank Officials' case (34 C.A.R. 843 at p. 849)."

"We have given earnest consideration to the question whether this Commission should pay regard to payments which have been obtained by duress. From the economic point of view it seems hardly open to question that the means by which over-award payments of sufficient duration were obtained is irrelevant when one is concerned with discovering economic capacity. The mere fact that such amounts are being paid and have been paid over an appreciable period is sufficient to demonstrate capacity. We would point out, however, that the over-award payments with which we are dealing, are, in the main, over-award payments which have been built up over the past five years since the 1954 Metal Trades Award was made. If, in that time, the Unions concerned in the applications before us had applied their energies to seeking relief in this tribunal instead of seeking to obtain relief by direct action it may well be that instead of an incomplete and fragmentary picture of over-award payments, identifiable and general increased payments might have been obtained through the processes of arbitration.

We have been unable on the material before us to arrive at any figure which could be said to be a reliable average over-award payment for any classification. The most we are able to say in the context of our general industrial knowledge is that in the Metal Trades industry there are over-award payments of varying amounts in quite a number of establishments. We have taken this factor, indefinite though it is, into account in arriving at our decision."

Economic Considerations.—Counsel for the unions took as the starting point for his economic submissions the year in which, he said, rates had last been properly fixed in the award, namely, 1947. He submitted that there had been a remarkable improvement in the economy since that date, and that over the period since then the economy had shown itself able to sustain the increases in margins claimed.

The employers took as their starting point 1954, the year in which margins were last fixed in this industry, and submitted that capacity had not improved since that time.

In reviewing the economic situation, the Commission considered the current position in the light of information which had become available since the 1959 Basic Wage Judgment. After considering various indicators of the state of the economy the Commission discussed the problems of inflation and the maintenance of economic stability. The Commission stated its views as follows:—

"We are conscious of the desirability of attempting to maintain the economic stability which this country has achieved. We are also conscious of the desirability of ensuring that wage justice should be done to employees under this Award. We have looked at the increases which we propose to grant in this case in the light of the submissions about economic stability and we do not consider that such increases are so likely to affect that stability that the economy will be adversely affected. If marginal increases cannot be granted in times of economic prosperity such as the present, it is difficult to imagine when they can be granted."

"We have considered, with the qualifications already mentioned in this Judgment, the decrease in the purchasing power of money which has occurred since the 1954 marginal fixation, we have assessed as well as we are able to the increased capacity which has occurred in the Australian economy since that time and the fact that productivity has played its part in that increase of strength, and we have considered the Basic Wage decisions and appraisals of the economy by the Court and the Commission since 1954. In the result we have thought it proper to increase margins in the Metal Trades industry in the particular circumstances which confront us by an amount which exceeds the loss in purchasing power of the 1954 margins which excess we consider has been earned by the contribution of the employees to productivity increases and made possible by the additional strength of the national economy."

Conclusion.—"In view of all the foregoing we have come to the conclusion that the employers' application to reduce wages under this award should be rejected and that increases in margins may properly be granted. We have tested the amount of increase to be awarded by taking certain representative classifications for which we award the following increases:—

						Present Margin.	Increase.	New Margin.
						s.	s. d.	s. d.
Duster	..	..	..	..	..	125	35 0	160 0
Forger	..	..	..	..	..	105	29 6	134 6
Fitter ..	..	..	..	..	..	75	21 0	96 0
Machinist—2nd class	..	..	..	..	..	50	14 0	64 0
Process worker	..	..	..	..	..	22	6 0	28 0

It will be seen that these new margins represent an increase of 28 per cent. and we award for all other classifications adjustments of 28 per cent. on current margins, the amount of the increase to be taken to the nearest 6d."

"The order giving effect to this decision will be settled by the Registrar with recourse if necessary to a member of this bench and will be expressed as a variation of the existing Award the period of operation being until 30th November, 1961."

Judgment was also delivered on 27th November, 1959, in connexion with the application for variation of margins in the Gold and Metalliferous Mining Award. The margin for the miner was increased from 32s. to 42s. 6d. a week from the beginning of the first full pay-period commencing in December, 1959. Marginal claims for other classifications were referred back to the appropriate Commissioner for consideration.

The Commission delivered a judgment on the application for interim increases with regard to the Metal Trades Award, Part II., the Aircraft Industry Award, Part II. and the Bank Officials' Award on 11th December, 1959. After considering the principles to be applied in determining whether interim increases should be made and, if so, how they should be assessed, the Commission concluded that interim increases should be granted, as follows:—

Metal Trades Award, Part II. and Aircraft Industry Award, Part II.—A 20 per cent. increase in margins to graduates and diplomates, payable as from the beginning of the first full pay-period commencing in December, 1959.

Bank Officials' Award.—A 20 per cent. increase in margins to officers in the 10th to 18th year of service inclusive and to accountants and managers, payable retrospectively as from 11th June, 1959. Increases were not awarded to more junior officers, nor to females.

E. EMPLOYMENT AND UNEMPLOYMENT.

§ 1. Employment.

1. *Total Occupied Persons.*—(i) *General.* The total number of occupied persons in Australia is obtained from the results of each population Census, supplemented by data in respect of Australian defence personnel serving outside Australia, who, in accordance with usual Census procedure, are not recorded in the Census. The figures shown below in sub-para. (ii) and (iii) are derived from the 1933, 1947 and 1954 Censuses, after making the adjustments referred to in the notes to the tables and in the accompanying text (sub-para. (ii)). For this reason and because of the distribution of "not stated" (see p. 313) they differ from the Census figures shown in Chapter IX.—Population.

(ii) *Australia.* The figures in the table below are divided into three categories:— (a) defence forces; (b) all persons fully occupied as employers, or as self-employed in businesses or on farms; and (c) wage and salary earners employed, or occupied as casual, part-time, intermittent or seasonal workers. "Unemployed" persons (*see* explanation on page 456) are excluded.

All unpaid "helpers" in non-rural industry have been included with wage and salary earners. Male unpaid "helpers" in rural industry have been included with employers and self-employed persons, as it is considered that the majority of these are sons or other close relatives of farmers working in *de facto* partnership, or as learners with the farm owner. Unpaid female "helpers" on farms are fairly numerous. Generally they are occupied mainly in home duties, and, with all other women occupied in unpaid home duties, have been excluded from the category of occupied persons.

TOTAL OCCUPIED PERSONS: AUSTRALIA, JUNE, 1933, 1947 AND 1954.
(^{'000.})

June.	Defence Forces. (a)	Employers and Self-employed.			Wage and Salary Earners.			Total Occupied Civilians.	Total Occupied Persons, including Defence Forces. (a)
		Rural Industry.	Other Industries.	Total.	Rural Industry.	Other Industries.	Total.		
MALES.									
1933	5.8	293.5	249.0	542.5	200.1	989.8	1,189.9	1,732.4	1,738.2
1947	53.2	278.9	286.8	565.7	148.2	1,659.4	1,807.6	2,373.3	2,426.5
1954	(b) 50.9	279.2	316.9	596.1	154.2	2,020.3	2,174.5	2,770.6	2,821.5
FEMALES.									
1933	..	15.2	56.3	71.5	3.2	(c) 446.6	449.8	521.3	521.3
1947	0.8	13.8	55.8	69.6	8.1	(d) 659.9	668.0	737.6	738.4
1954	2.0	19.6	62.1	81.7	7.6	735.4	743.0	824.7	826.7
PERSONS.									
1933	5.8	308.7	305.3	614.0	203.3	1,436.4	1,639.7	2,253.7	2,259.5
1947	54.0	292.7	342.6	635.3	156.3	2,319.3	2,475.6	3,110.9	3,164.9
1954	52.9	298.8	379.0	677.8	161.8	2,755.7	2,917.5	3,595.3	3,648.2

(a) Includes those serving outside Australia. (b) Excludes approximately 10,300 males undergoing full-time National Service Training at the time of the Census. With the exception of full-time students these persons have been included in the figures of occupied civilians. (c) Includes females in private domestic service:—106,700 in 1933, 40,200 in 1947 and 29,600 in 1954. (d) Includes an estimate of 40,400 part-time workers not classified as wage earners at the Census.

The numbers of defence personnel serving outside Australia who were included in the defence forces shown in the table above were as follows:—1947, 13,843 males, 143 females; 1954, 5,841 males, 62 females.

During the fourteen years from 1933 to 1947, the number of persons actually occupied at work increased by 905,400, or by an average of 64,700 persons per annum, whilst during the seven years from 1947 to 1954, the increase amounted to 483,300 or 69,000 per annum. Practically all of the increase in the number of occupied persons during the years 1947 to 1954 was due to the growth of the total available work force. During the previous intercensal period (1933 to 1947), the increase in the number of persons occupied comprised approximately 400,000 persons who had been unemployed in 1933 and approximately 500,000 growth in the total available work force.

The total numbers of employers, self-employed and wage and salary earners of both sexes classified at the Census as engaged in agricultural, pastoral and dairying industries (excluding female "helpers"—*see* above) declined from 512,000 in 1933 to 460,600 in 1954. There was very little movement in the figures between 1947 and 1954.

The proportion of male employers and self-employed in industries other than rural declined from 20.1 per cent. of occupied civilian males in these industries in 1933 to 14.7 per cent. in 1947, and to 13.6 per cent. in 1954. The corresponding proportion of female employers and self-employed declined from 11.2 per cent. of all occupied females in non-rural industries in 1933 to 7.8 per cent. in 1947, and remained constant at 7.8 per cent.

in 1954. The increase in the number of male employers and self-employed in non-rural industries during the years 1947 to 1954 averaged only 4,300 a year. The average increase during the same period in the number of male wage and salary earners in these industries was 51,600 a year.

(iii) *States.* The following table shows the total numbers of occupied males and females in each State and Territory in June of 1947 and 1954, classified as defence forces, employers and self-employed persons, and wage and salary earners.

**TOTAL OCCUPIED PERSONS: STATES AND TERRITORIES,
JUNE, 1947 AND 1954.
(‘000.)**

State or Territory.	Defence Forces. (a)		Employers and Self-employed.		Wage and Salary Earners.		Total Occupied Persons, including Defence Forces.(a)	
	June, 1947.	June, 1954.	June, 1947.	June, 1954.	June, 1947.	June, 1954.	June, 1947.	June, 1954.
MALES.								
	(b)							
New South Wales ..	23.1	21.4	197.5	207.3	728.1	833.7	948.7	1,062.4
Victoria ..	15.9	15.0	158.1	167.1	490.5	596.9	664.5	779.0
Queensland ..	5.9	6.6	96.9	99.7	252.0	307.4	354.8	413.7
South Australia ..	2.6	2.3	51.8	55.5	153.3	194.1	207.7	251.9
Western Australia ..	3.4	3.1	39.8	44.3	116.6	156.1	159.8	203.5
Tasmania ..	0.8	0.8	20.1	20.2	57.8	71.9	78.7	92.9
Northern Territory ..	0.8	0.7	1.0	1.1	4.0	5.8	5.8	7.6
Australian Capital Territory ..	0.7	1.0	0.5	0.9	5.3	8.6	6.5	10.5
<i>Australia</i> ..	<i>53.2</i>	<i>50.9</i>	<i>565.7</i>	<i>596.1</i>	<i>1,807.6</i>	<i>2,174.5</i>	<i>2,426.5</i>	<i>2,821.5</i>
FEMALES.								
New South Wales ..	0.3	0.5	25.4	29.0	268.6	290.6	294.3	320.1
Victoria ..	0.4	0.8	22.5	25.3	202.0	227.0	224.9	253.1
Queensland ..	0.1	0.2	10.2	12.5	83.9	93.1	94.2	105.8
South Australia ..	..	0.1	5.2	7.0	52.9	59.9	58.1	67.0
Western Australia ..	..	0.1	4.3	5.6	39.2	46.6	43.5	52.3
Tasmania ..	..	0.1	1.8	2.1	18.9	21.7	20.7	23.9
Northern Territory ..	..	0.1	0.1	0.1	0.7	1.3	0.8	1.5
Australian Capital Territory ..	..	0.1	0.1	0.1	1.8	2.8	1.9	3.0
<i>Australia</i> ..	<i>0.8</i>	<i>2.0</i>	<i>69.6</i>	<i>81.7</i>	<i>668.0</i>	<i>743.0</i>	<i>738.4</i>	<i>826.7</i>
PERSONS.								
	(b)							
New South Wales ..	23.4	21.9	222.9	236.3	996.7	1,124.3	1,243.0	1,382.5
Victoria ..	16.3	15.8	180.6	192.4	692.5	823.9	889.4	1,032.1
Queensland ..	6.0	6.8	107.1	112.2	335.9	400.5	449.0	519.5
South Australia ..	2.6	2.4	57.0	62.5	206.2	254.0	265.8	318.9
Western Australia ..	3.4	3.2	44.1	49.9	155.8	202.7	203.3	255.8
Tasmania ..	0.8	0.9	21.9	22.3	76.7	93.6	99.4	116.8
Northern Territory ..	0.8	0.8	1.1	1.2	4.7	7.1	6.6	9.1
Australian Capital Territory ..	0.7	1.1	0.6	1.0	7.1	11.4	8.4	13.5
<i>Australia</i> ..	<i>54.0</i>	<i>52.9</i>	<i>635.3</i>	<i>677.8</i>	<i>2,475.6</i>	<i>2,917.5</i>	<i>3,164.9</i>	<i>3,648.2</i>

(a) Includes those serving outside Australia. (b) Excludes approximately 10,300 males undergoing full-time National Service Training at the time of the Census. See also footnotes to previous table.

The occupied population of Australia (including defence forces but excluding unemployed, pensioners, retired, persons of independent means and dependants) increased from 1947 to 1954 by 15.3 per cent. The percentage increase in each State and Territory was as follows:—New South Wales, 11.2; Victoria, 16.0; Queensland, 15.7; South Australia, 20.0; Western Australia, 25.8; Tasmania, 17.5; Northern Territory, 37.9; and Australian Capital Territory, 60.7.

2. Wage and Salary Earners in Civilian Employment.—(i) *General.* Monthly estimates of the number of wage and salary earners in civilian employment (excluding employees in rural industry and female private domestics) are obtained from three main sources, namely, (a) monthly data as to persons employed in factories as shown at annual Factory Censuses; (b) current monthly returns from Governmental Bodies; and (c) current monthly Pay-roll Tax returns. There are also some other direct records of monthly employment (e.g., for hospitals).

These are supplemented by estimates of the number of employees outside the ambit of the Factory Census, returns from Governmental Bodies and Pay-roll Tax returns. Monthly numbers of factory employees subsequent to June, 1959 are estimated and are subject to revision when the Factory Censuses for 1959-60 and ensuing years are tabulated.

The estimates of wage and salary earners in this section are compiled on an establishment or enterprise basis, and therefore do not cover exactly the same area of industry as do the relevant industry tabulations of the General Censuses of 1947 and 1954, which are based on the returns of individual employees.

The purpose of these estimates of employment is to measure, as nearly as may be with available data, current monthly *trends* in employment in the defined field. Industry groups herein are not identical in coverage with Census groups.

Pay-roll Tax returns are lodged by all employers paying more than £200 a week in wages, other than certain Commonwealth Government Bodies, religious and benevolent institutions, public hospitals and other similar organizations specifically exempted under the Pay-roll Tax Assessment Act 1941-1957.

(ii) *Australia: Industrial Groups.* The following table shows total male and female wage and salary earners in civilian employment (excluding employees in rural industry, female private domestics, permanent defence forces and National Service trainees in camp) subdivided to show the extent of employment provided by Government bodies and by private employers respectively. Principal industrial groups shown in the table include both private employees and Government employees, if any. (Current figures are published in the *Monthly Bulletin of Employment Statistics* and the *Monthly Review of Business Statistics*). The manufacturing employment figures published in this table comprise (i) the series showing actual monthly employment in factories as recorded at successive annual Censuses of Factories to June, 1959 (see Chapter VI.), with interim estimates for subsequent months, and (ii) estimates of the number of employees in industrial establishments outside the scope of the definition of a factory and persons employed by factory proprietors but engaged in selling and distribution, etc.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT: INDUSTRIAL GROUPS, AUSTRALIA.

(*Excluding Rural Wage Earners, Female Private Domestics, Personnel in Defence Forces and National Service Trainees in Camp.*)

('000.)

Industrial Group.	June, 1954.	June, 1955.	June, 1956.	June, 1957.	June, 1958.	June, 1959.	Dec., 1959.
MALES.							
Mining and Quarrying	58.7	58.3	57.3	56.3	51.6	49.1	49.0
Manufacturing, etc.(a)	798.7	826.2	842.4	845.1	857.2	873.6	882.2
Building and Construction	205.7	211.8	214.6	207.4	202.4	205.2	201.9
Transport(b)	238.7	244.7	245.9	245.1	242.1	241.7	239.0
Communication	61.4	64.0	64.5	67.9	69.7	70.9	70.7
Property and Finance	57.9	59.6	61.7	64.0	66.0	68.8	69.7
Retail Trade	128.4	129.3	130.0	129.6	132.7	133.6	141.0
Wholesale and Other Commerce ..	140.4	147.5	151.0	150.0	150.3	152.7	157.3
Public Authority Activity, n.e.i. ..	97.5	99.2	100.6	101.7	104.0	105.4	105.8
Health	25.9	26.0	26.8	27.1	27.5	28.3	28.8
Education	36.7	38.8	40.9	43.5	45.4	49.1	49.5
Personal Service	52.1	54.3	54.4	54.7	54.9	54.3	56.3
Other(c)	88.2	90.0	92.1	93.0	94.1	94.9	96.7
Total	1,990.3	2,049.7	2,082.2	2,085.4	2,097.9	2,127.6	2,147.9
Government(d)	581.4	599.1	604.9	609.5	621.8	633.9	630.1
Private	1,408.9	1,450.6	1,477.3	1,475.9	1,476.1	1,493.7	1,517.8
Total	1,990.3	2,049.7	2,082.2	2,085.4	2,097.9	2,127.6	2,147.9

NOTE.—For footnotes see next page.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT: INDUSTRIAL GROUPS, AUSTRALIA—*continued*.

('000.)

Industrial Group.	June, 1954.	June, 1955.	June, 1956.	June, 1957.	June, 1958.	June, 1959.	Dec., 1959.
FEMALES.							
Mining and Quarrying ..	1.0	1.1	1.2	1.2	1.1	1.1	1.1
Manufacturing, etc. (a) ..	239.0	245.7	250.0	250.4	251.7	256.8	264.9
Building and Construction ..	4.7	4.9	5.1	5.3	5.5	5.6	5.7
Transport (b) ..	18.7	19.7	20.7	20.4	20.3	20.6	20.9
Communication ..	17.8	18.7	19.4	19.7	19.6	19.7	19.8
Property and Finance ..	34.7	38.1	41.8	43.5	45.4	48.0	48.8
Retail Trade ..	115.3	121.7	123.0	121.6	125.6	126.5	137.2
Wholesale and Other Commerce ..	42.3	45.0	46.3	46.8	46.9	47.3	48.1
Public Authority Activity, n.e.i. ..	27.3	28.6	29.1	29.2	29.8	30.7	30.9
Health ..	70.8	73.5	77.6	79.4	82.1	87.6	88.5
Education ..	44.9	48.0	50.6	53.9	56.3	60.8	60.2
Personal Service ..	67.0	69.6	70.2	69.5	68.7	68.3	69.7
Other (c) ..	36.2	37.3	38.4	39.3	39.5	40.0	40.8
Total ..	719.7	751.9	773.4	780.2	792.5	813.0	836.6
Government (d) ..	114.5	122.8	129.8	132.8	136.6	143.9	143.5
Private ..	605.2	629.1	643.6	647.4	655.9	669.1	693.1
Total ..	719.7	751.9	773.4	780.2	792.5	813.0	836.6

PERSONS.

Mining and Quarrying ..	59.7	59.4	58.5	57.5	52.7	50.2	50.1
Manufacturing, etc. (a) ..	1,037.7	1,071.9	1,092.4	1,095.5	1,108.9	1,130.4	1,147.1
Building and Construction ..	210.4	216.7	219.7	212.7	207.9	210.8	207.6
Transport (b) ..	257.4	264.4	266.6	265.5	262.4	262.3	259.9
Communication ..	79.2	82.7	83.9	87.6	89.3	90.6	90.5
Property and Finance ..	92.6	97.7	103.5	107.5	111.4	116.8	118.5
Retail Trade ..	243.7	251.0	253.0	251.2	258.3	260.1	278.2
Wholesale and Other Commerce ..	182.7	192.5	197.3	196.8	197.2	200.0	205.4
Public Authority Activity, n.e.i. ..	124.8	127.8	129.7	130.9	133.8	136.1	136.7
Health ..	96.7	99.5	104.4	106.5	109.6	115.9	117.3
Education ..	81.6	86.8	91.5	97.4	101.7	109.9	109.7
Personal Service ..	119.1	123.9	124.6	124.2	123.6	122.6	126.0
Other (c) ..	124.4	127.3	130.5	132.3	133.6	134.9	137.5
Total ..	2,710.0	2,801.6	2,855.6	2,865.6	2,890.4	2,940.6	2,984.5
Government (d) ..	695.9	721.9	734.7	742.3	758.4	777.8	773.6
Private ..	2,014.1	2,079.7	2,120.9	2,123.3	2,132.0	2,162.8	2,210.9
Total ..	2,710.0	2,801.6	2,855.6	2,865.6	2,890.4	2,940.6	2,984.5

(a) Includes employees engaged in selling and distribution, etc., who are outside the scope of the factory employment figures as defined and published in Chapter VI. (b) Includes road transport; shipping and stevedoring; rail and air transport. (c) Includes forestry, fishing and trapping, law and order; religion and social welfare; other professional; amusement, sport and recreation. (d) Includes employees of Commonwealth, State, Local and semi-Governmental authorities. See para. 3 (i) below.

A graph showing wage and salary earners in civilian employment in the main industrial groups appears on page 421.

(iii) *States.* Statistics of total employment of wage and salary earners (excluding rural wage earners, female private domestics and defence forces) since 1954 are shown for each State and Territory in the following table.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT.

(Excluding Rural Wage Earners, Female Private Domestics, Personnel in Defence Forces and National Service Trainees in Camp.)

('000.)

Year and Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1954—June ..	771.3	556.8	269.6	176.8	139.1	63.6	4.9	8.2	1,990.3
1955—June ..	794.1	576.2	278.2	180.8	141.5	65.1	4.8	9.0	2,049.7
1956—June ..	808.3	583.2	282.4	187.9	140.5	65.7	5.2	9.0	2,082.2
1957—June ..	810.2	586.0	282.6	186.4	138.4	66.0	5.8	10.0	2,085.4
1958—June ..	813.9	592.9	282.8	186.0	138.6	67.0	5.6	11.1	2,097.9
1959—June ..	819.0	603.4	287.8	192.0	140.0	67.6	5.9	11.9	2,127.6
1959—December	831.9	611.6	282.0	194.3	140.8	68.6	6.0	12.7	2,147.9

FEMALES.

1954—June ..	284.3	222.1	88.6	56.6	43.4	21.2	0.9	2.6	719.7
1955—June ..	297.4	232.4	92.1	59.8	44.3	21.8	1.0	3.1	751.9
1956—June ..	305.9	238.5	93.7	62.5	45.1	23.2	1.2	3.3	773.4
1957—June ..	309.3	240.4	95.8	62.4	44.5	22.9	1.2	3.7	780.2
1958—June ..	314.4	244.5	95.9	63.4	45.6	23.5	1.3	3.9	792.5
1959—June ..	320.4	252.8	97.9	65.9	47.0	23.3	1.4	4.3	813.0
1959—December	331.7	259.6	99.6	67.9	48.2	23.6	1.5	4.5	836.6

PERSONS.

1954—June ..	1,055.6	778.9	358.2	233.4	182.5	84.8	5.8	10.8	2,710.0
1955—June ..	1,091.5	808.6	370.3	240.6	185.8	86.9	5.8	12.1	2,801.6
1956—June ..	1,114.2	821.7	376.1	250.4	185.6	88.9	6.4	12.3	2,855.6
1957—June ..	1,119.5	826.4	378.4	248.8	182.9	88.9	7.0	13.7	2,865.6
1958—June ..	1,128.3	837.4	378.7	249.4	184.2	90.5	6.9	15.0	2,890.4
1959—June ..	1,139.4	856.2	385.7	257.9	187.0	90.9	7.3	16.2	2,940.6
1959—December	1,163.6	871.2	381.6	262.2	189.0	92.2	7.5	17.2	2,984.5

(iv) *Factories.* Actual monthly factory employment derived from the results of annual factory censuses is published in the Bulletin *Secondary Industries*, issued by this Bureau.

Additional tables regarding employment in factories may be found in Chapter VI.—*Manufacturing Industry.*

An index of factory employment in Australia, published in the *Monthly Review of Business Statistics*, shows that for the year 1958–59, the level of employment in factories was 99 per cent. higher than the average factory employment for the three years ended June, 1939.

3. *Government Employees.*—(i) *States and Territories.* The numbers of civilian employees of Commonwealth Government, State, Local and semi-Government authorities in each State and Territory at June, 1959 are shown in the following table. These include all employees of government authorities on services such as railways, tramways, banks, post office, air transport, education, broadcasting, television, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees, within Australia.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES(a): JUNE, 1959.

State or Territory.	Commonwealth Government.			State Government.			Local Government.			Total.		
	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.
N.S.W. ..	58,341	15,583	73,924	135,997	29,733	165,730	28,052	3,207	31,259	222,390	48,523	270,913
Vic. ..	52,670	15,328	67,998	102,916	27,969	130,885	13,729	1,929	15,658	169,315	45,226	214,541
Qld. ..	18,494	4,885	23,379	56,943	9,017	65,960	18,524	981	19,505	93,961	14,883	108,844
S.A. ..	17,708	3,810	21,518	40,523	11,623	52,146	3,517	326	3,843	61,748	15,759	77,507
W.A. ..	9,637	2,284	11,941	39,902	7,592	47,494	3,667	362	4,029	53,226	10,238	63,464
Tas. ..	4,830	1,336	6,166	14,993	4,183	19,176	2,276	196	2,472	22,099	5,715	27,814
N.T. ..	3,004	774	3,778	..	..	..	83	7	90	3,087	781	3,868
A.C.T. ..	8,020	2,810	10,830	..	..	..	..	..	..	8,020	2,810	10,830
Aust.	172,724	46,810	219,534	391,274	90,117	481,391	69,848	7,008	76,856	633,846	143,935	777,781

(a) Includes semi-Government authorities. See explanation above.

(ii) *Australia.* The following table shows at June in each of the years 1954 to 1959, and at December, 1959, the number of civilian employees of Commonwealth, State, Local and semi-Government authorities.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES(a): AUSTRALIA.

Date.	Commonwealth Government.			State Government.			Local Government.			Total.		
	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.
June—												
1954 ..	156,604	41,579	198,183	363,095	67,466	430,561	61,643	5,493	67,136	581,342	114,538	695,880
1955 ..	160,840	44,291	205,131	373,238	72,728	445,966	65,026	5,771	70,797	599,104	122,790	721,894
1956 ..	162,314	46,114	208,428	377,077	77,587	454,664	65,558	6,138	71,696	604,949	129,839	734,788
1957 ..	165,566	45,612	211,178	378,055	80,825	458,880	65,854	6,376	72,230	609,475	132,813	742,288
1958 ..	169,764	45,654	215,418	384,424	84,326	468,750	67,603	6,688	74,291	621,791	136,668	758,459
1959 ..	172,724	46,810	219,534	391,274	90,117	481,391	69,848	7,008	76,856	633,846	143,935	777,781
Dec.—												
1959 ..	172,398	46,898	219,296	386,407	89,344	475,751	71,340	7,219	78,559	630,145	143,461	773,606

(a) Includes semi-Government authorities. See explanation above.

§ 2. Unemployment.

The total number of persons “unemployed” has been recorded only at the dates of the various Censuses. Prior to the 1947 Census, persons who were “unemployed” were requested to furnish particulars of the cause and duration of unemployment, but from 1947 onwards the enquiry was broadened to include all persons (usually engaged in industry, business, trade, profession or service) who were out of a job and “not at work” at the time of the Census for whatever reason, including any not normally associated with unemployment. This change in the form of the questionnaire probably resulted in some variation in response. The following table sets out the number of persons recorded within these categories at the Censuses of 1933 to 1954. The percentage of “unemployed” at each date to all wage and salary earners, comprising those estimated to be in employment and those unemployed, is also shown.

UNEMPLOYMENT (ALL CAUSES): AUSTRALIA, CENSUSES, 1933, 1947 AND 1954.

Date.	Wage and Salary Earners Unemployed. ('000.)			Proportion of Wage and Salary Earners Unemployed. (Per Cent.)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
June, 1933(a) ..	405.4	75.8	481.2	25.4	14.5	22.7
June, 1947(b) ..	66.6	16.9	83.5	3.5	2.5	3.2
June, 1954(b) ..	41.0	14.0	55.0	1.8	1.9	1.8

(a) As recorded at the Census. In addition there were considerable numbers of youths and young women of working ages who had never been employed and were "not at work" at the time of the Census.
 (b) Persons in the work force who were "not at work" (see explanation above) at the time of the Census.

The following table shows the numbers of males and females "unemployed" or "not at work" classified according to cause of unemployment at the Censuses of 1933, 1947 and 1954. The change in the form of questionnaire after 1933 should be borne in mind.

CAUSES OF UNEMPLOYMENT: AUSTRALIA, CENSUSES, 1933, 1947 AND 1954.

Year.	Unable to Secure Employment.	Temporarily Laid Off.	Illness.	Accident.	Industrial Dispute.	Other.	Total.
MALES.							
1933 ..	374,569	(a)	18,083	4,702	1,595	6,483	405,432
1947 (b) ..	17,314	12,458	14,639	2,985	475	(c)18,743	66,614
1954 (b) (d) ..	9,912	4,423	11,879	2,804	344	(c)11,652	41,014
FEMALES.							
1933 ..	62,630	(a)	9,193	434	95	3,465	75,817
1947 (b) ..	2,254	2,449	4,396	280	24	(c) 7,512	16,915
1954 (b) (d) ..	3,685	1,386	4,310	318	17	(c) 4,284	14,000

(a) Not available. (b) See note (b) to previous table. (c) The majority of these persons were resting between jobs or changing jobs. (d) Revised since previous issue.

Details of the number of persons receiving unemployment and sickness benefits and the payments made may be found in Chapter XVIII.—Welfare Services.

§ 3. Commonwealth Employment Service.

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the Re-establishment and Employment Act 1945-1958 (sections 47 and 48). In brief, the main functions of the Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

The organization and functions of the C.E.S. accord with the Employment Service Convention 1948 and Recommendation 1948 of the International Labour Organization, which were respectively ratified and adopted by Australia in December, 1949.

The C.E.S. functions within the Employment Division of the Department of Labour and National Service, on a four-tiered decentralized basis. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State, with 120 District Employment Offices in suburban and the larger provincial centres and 341 agents in the smaller country centres. The District Employment Offices are distributed as follows: New South Wales, 47; Victoria, 31; Queensland, 19; South Australia, 8; Western Australia, 9; Tasmania, 4; Northern Territory, 1; Australian Capital Territory, 1.

The C.E.S. provides specialized facilities for young people, persons with physical and mental handicaps, ex-service personnel, migrants, rural workers and persons with professional and technical qualifications.

Vocational guidance is provided by the C.E.S., free of charge, by a staff of qualified psychologists. It is available to any person, but is provided particularly for young people, ex-servicemen and the physically handicapped. In New South Wales the State Department of Labour and Industry offers a similar service, mainly to young people leaving school.

The C.E.S. has responsibilities in the administration of the unemployment and sickness benefits provided under the Social Services Act 1947-1959. All applicants for benefits must register at a District Employment Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them.

The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance to obtain employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of December, 1959, about 191,000 British and European migrant workers had been placed in employment by the C.E.S.

Since 1951, the C.E.S. has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance. The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health and economic and scientific research and development.

In association with its placement activities, the C.E.S. carries out regular surveys of the labour market and supplies detailed information to interested Commonwealth and State Government Departments and instrumentalities and to the public. It also advises employers, employees and other interested persons on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its thirteenth year of operation in May, 1959. During the year ended 31st December, 1959, there were 749,236 applicants who registered for employment, of whom 509,063 were referred to employers and 353,926 placed in employment. New vacancies notified numbered 494,145 and vacancies unfilled at the end of December, 1959, 37,516.

Prior to the setting up of the Commonwealth Employment Service, State Labour Exchange Organizations existed in several States, but they have been superseded. Details of the organization and administration of these exchanges were given in *Labour Report*, No. 30, page 133.

§ 4. Industrial Disputes.

1. **General.**—Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*.

Particulars of all disputes in progress during the year are included in the annual figures whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of "the number of disputes" and "workers involved" in disputes which commenced in any year and were still in progress during the following year will be included in the figures for both years.

2. **Industrial Groups.**—The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1959, classified according to industrial groups. The industrial groups have been rearranged to conform, as nearly as may be, with the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in previous issues.

INDUSTRIAL DISPUTES(a): INDUSTRIAL GROUPS, AUSTRALIA, 1959.

Industrial Group.	Number.	Workers Involved.			Working Days Lost.	Estimated Loss in Wages. (£).
		Directly.	In-directly. (b)	Total.		
Agriculture, Grazing, etc.	1	820	..	820	410	1,353
Coal Mining	330	42,705	..	42,705	69,648	262,477
Other Mining and Quarrying	15	10,654	..	10,654	18,106	96,043
Engineering, Metal Works, etc. ..	88	29,592	804	30,396	88,685	314,075
Textiles, Clothing and Footwear ..	8	1,510	80	1,590	3,732	15,044
Food, Drink and Tobacco	78	24,095	4,701	28,796	51,492	188,735
Sawmilling, Furniture, etc. .. ..	..	..	..	..	..	..
Paper, Printing, etc.	1	240	..	240	1,030	3,500
Other Manufacturing	50	7,884	2,179	10,063	35,437	134,235
Building and Construction	38	8,922	186	9,108	21,507	90,266
Railway and Tramway Services ..	31	18,074	39	18,113	5,503	17,486
Road and Air Transport	16	2,829	..	2,829	2,373	6,771
Shipping	6	309	..	309	720	2,609
Stevedoring	189	72,345	..	72,345	58,695	217,101
Hotels, etc. and Personal Service ..	3	7,101	13	7,114	3,706	12,380
Other Industries (c)	15	2,389	..	2,389	3,995	15,145
Total	869	229,469	8,002	237,471	365,039	1,377,220

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (c) Includes Communication; Finance and Property; Wholesale and Retail Trade; Public Administration and Professional Services; and Amusement, Sport and Recreation.

A graph showing, for the years 1950 to 1959, the working days lost as a result of industrial disputes in the main industrial groups will be found on page 422.

3. **States and Territories.**—The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved, and the losses in working days and wages caused by disputes which were current during each of the years 1956 to 1959.

INDUSTRIAL DISPUTES(a): STATES AND TERRITORIES.

State or Territory.	Year.	Number.	Workers Involved.			Working Days Lost.	Estimated Loss in Wages. (£)
			Directly.	Indirectly. (b)	Total.		
New South Wales ..	1956	878	219,458	6,796	226,254	611,279	2,199,764
	1957	761	253,041	5,950	258,991	505,910	1,860,101
	1958	624	137,922	3,906	141,828	231,537	832,644
	1959	547	123,558	2,493	126,051	211,352	819,585
Victoria ..	1956	54	35,594	2,283	37,877	111,665	386,139
	1957	47	8,728	453	9,181	13,444	45,576
	1958	66	45,594	1,124	46,718	99,855	340,346
	1959	60	31,134	1,107	32,241	35,890	131,440
Queensland ..	1956	269	112,409	2,973	115,382	238,812	815,592
	1957	221	43,123	4,611	47,734	95,300	348,422
	1958	203	60,208	2,024	62,232	87,866	343,662
	1959	175	50,883	3,996	54,879	90,777	330,653
South Australia ..	1956	21	18,527	..	18,527	74,666	259,636
	1957	13	6,274	7	6,281	3,703	12,571
	1958	22	8,129	62	8,191	9,338	34,540
	1959	21	5,437	..	5,437	7,487	24,950
Western Australia ..	1956	14	9,780	1,341	11,121	31,944	111,504
	1957	14	5,352	..	5,352	3,068	10,801
	1958	20	10,847	160	11,007	2,970	10,382
	1959	20	10,864	383	11,247	11,243	39,620
Tasmania ..	1956	45	15,969	..	15,969	46,907	172,206
	1957	36	7,236	..	7,236	5,330	18,294
	1958	24	9,268	..	9,268	4,508	15,066
	1959	34	6,348	..	6,348	6,593	24,375
Northern Territory ..	1956	24	2,770	..	2,770	5,197	18,194
	1957	9	2,183	..	2,183	2,428	9,241
	1958	27	3,535	..	3,535	3,376	12,563
	1959	9	1,007	11	1,018	966	3,537
Australian Capital Territory	1956	1	83	..	83	913	4,026
	1957	2	58	27	85	1,030	3,616
	1958	1	70	..	70	440	1,400
	1959	3	238	12	250	731	3,060
Australia ..	1956	1,306	414,590	13,393	427,983	1,121,383	3,967,061
	1957	1,103	325,995	11,048	337,043	630,213	2,308,622
	1958	987	275,573	7,276	282,849	439,890	1,590,603
	1959	869	229,469	8,002	237,471	365,039	1,377,220

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

4. Duration.—The following table gives particulars of industrial disputes during 1959 in the three groups "Coal Mining", "Stevedoring" and "Other Industries", classified according to duration. This dissection has been made because the pattern of the disputes in coal mining and stevedoring differs significantly from that in other industries.

DURATION OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1959.

Duration.(b)	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
1 day and less	219	141	151	511
2 days and more than 1 day	59	36	62	157
3 days and more than 2 days	20	10	35	65
Over 3 days and less than 1 week	10	1	34	45
1 week and less than 2 weeks	16	1	45	62
2 weeks and less than 4 weeks	5	..	13	18
4 weeks and less than 8 weeks	1	..	9	10
8 weeks and over .. .. .	..	..	1	1
Total	330	189	350	869

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) One week equals five working days.

DURATION OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1959—continued.

Duration.(b)	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
WORKERS INVOLVED(c).				
1 day and less	29,490	62,090	68,052	159,632
2 days and more than 1 day	5,436	7,167	28,402	41,005
3 days and more than 2 days	4,079	2,411	8,966	15,456
Over 3 days and less than 1 week	1,650	90	5,547	7,287
1 week and less than 2 weeks	1,729	587	8,408	10,724
2 weeks and less than 4 weeks	295	..	1,955	2,250
4 weeks and less than 8 weeks	26	..	603	629
8 weeks and over .. .. .	..	..	488	488
Total	42,705	72,345	122,421	237,471

WORKING DAYS LOST.

1 day and less	28,377	37,555	41,640	107,572
2 days and more than 1 day	9,688	10,975	41,425	62,088
3 days and more than 2 days	10,029	6,681	23,269	39,979
Over 3 days and less than 1 week	6,277	315	19,875	26,467
1 week and less than 2 weeks	11,178	3,169	50,745	65,092
2 weeks and less than 4 weeks	3,449	..	21,803	25,252
4 weeks and less than 8 weeks	650	..	14,289	14,939
8 weeks and over .. .. .	..	..	23,650	23,650
Total	69,648	58,695	236,696	365,039

(a) Refers only to disputes involving a stoppage of work of 10-man-days or more. (b) One week equals five working days. (c) Includes workers indirectly involved. See note (b) to previous table.

5. Causes.—(i) *General.* In issues of the Official Year Book prior to No. 40 the causes of industrial disputes were classified in some detail for all industries combined. As from 1950, however, stoppages have been analysed in three separate groups, "Coal Mining", "Stevedoring" and "Other Industries".

Under this classification, causes are grouped under four main headings:—(1) Wages, Hours and Leave; (2) Physical Working Conditions and Managerial Policy; (3) Trade Unionism; (4) Other Causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, which term covers disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g., political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

As the items included under these headings differ somewhat from those included under the similar headings used for classifying causes of disputes in years prior to 1950, figures for 1950 and subsequent years are not strictly comparable with those for earlier years.

(ii) *Industry Groups.* The following table shows particulars of industrial disputes for 1959 classified according to cause in three industry groups:—

CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1959.

Cause of Dispute.	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
NUMBER OF DISPUTES.				
Wages, Hours and Leave	19	7	79	105
Physical Working Conditions and Managerial Policy ..	194	144	218	556
Trade Unionism	37	19	30	86
Other	80	19	23	122
Total	330	189	350	869
WORKERS INVOLVED.(b)				
Wages, Hours and Leave	5,084	19,009	50,234	74,327
Physical Working Conditions and Managerial Policy ..	18,138	36,929	53,772	108,839
Trade Unionism	3,406	9,020	9,138	21,564
Other	16,077	7,387	9,277	32,741
Total	42,705	72,345	122,421	237,471
WORKING DAYS LOST.				
Wages, Hours and Leave	7,602	13,178	97,230	118,010
Physical Working Conditions and Managerial Policy ..	36,899	31,752	116,631	185,282
Trade Unionism	6,167	10,309	12,350	28,826
Other	18,980	3,456	10,485	32,921
Total	69,648	58,695	236,696	365,039

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table at top of page 460.

(iii) *Summary, 1955 to 1959.* The following table gives particulars of industrial disputes according to cause for the years 1955 to 1959.

CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA.

Cause of Dispute.	1955.	1956.	1957.	1958.	1959.
NUMBER OF DISPUTES.					
Wages, Hours and Leave	201	107	75	73	105
Physical Working Conditions and Managerial Policy	887	792	674	630	556
Trade Unionism	172	106	70	80	86
Other	272	301	284	204	122
Total	1,532	1,306	1,103	987	869
WORKERS INVOLVED.(b)					
Wages, Hours and Leave	139,522	130,526	62,708	15,861	74,327
Physical Working Conditions and Managerial Policy	184,449	149,208	151,863	158,729	108,839
Trade Unionism	37,998	19,816	13,612	16,432	21,564
Other	82,678	128,433	108,860	91,827	32,741
Total	444,647	427,983	337,043	282,849	237,471
WORKING DAYS LOST.					
Wages, Hours and Leave	467,591	667,964	181,839	56,214	118,010
Physical Working Conditions and Managerial Policy	398,147	295,633	321,422	279,253	185,282
Trade Unionism	62,103	40,844	19,460	23,139	28,826
Other	83,043	116,942	107,492	81,284	32,921
Total	1,010,884	1,121,383	630,213	439,890	365,039

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table at top of page 460.

6. Results.—In issues of the Official Year Book prior to No. 40, tables were included showing analyses of the results of industrial disputes over a period of years. This tabulation was discontinued because of the difficulty of obtaining the details necessary to make a classification in precise terms of the results of industrial disputes.

7. **Methods of Settlement.**—The following table shows particulars of industrial disputes for 1959 classified according to method of settlement, in three industry groups:—

INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, AUSTRALIA, 1959.

Method of Settlement.	Coal Mining.	Stevedoring.	Other Industries. (b)	All Industries. (b)
NUMBER OF DISPUTES.				
1. By private negotiation	83	3	106	192
2. By mediation not based on legislation	1	..	1	2
3. State legislation—				
(a) Under State Conciliation, etc., legislation ..	1	..	78	79
(b) By reference to State Government officials ..	..	..	1	1
4. Commonwealth and Commonwealth-State legislation—				
(a) Industrial Tribunals under—				
(i) Conciliation and Arbitration Act ..	..	1	56	57
(ii) Coal Industry Acts	22	..	..	22
(iii) Stevedoring Industry Act .. .. .	..	1	..	1
(iv) Other Acts .. .. .	..	..	1	1
(b) By reference to Commonwealth Government officials ..	..	76	..	76
5. By filling places of workers on strike or locked out ..	..	..	..	..
6. By closing down establishment permanently .. .. .	..	..	..	..
7. By resumption without negotiation	223	108	105	436
8. By other methods .. .. .	..	..	..	..
Total	330	189	348	867

WORKERS INVOLVED.(c)

1. By private negotiation	6,554	1,927	24,355	32,836
2. By mediation not based on legislation	54	..	364	418
3. State legislation—				
(a) Under State Conciliation, etc., legislation ..	110	..	18,674	18,784
(b) By reference to State Government officials ..	..	..	25	25
4. Commonwealth and Commonwealth-State legislation—				
(a) Industrial Tribunals under—				
(i) Conciliation and Arbitration Act ..	..	90	7,823	7,913
(ii) Coal Industry Acts	2,301	..	..	2,301
(iii) Stevedoring Industry Act .. .. .	..	62	..	62
(iv) Other Acts .. .. .	..	..	25	25
(b) By reference to Commonwealth Government officials ..	..	9,624	..	9,624
5. By filling places of workers on strike or locked out ..	..	..	..	..
6. By closing down establishment permanently .. .. .	..	..	..	..
7. By resumption without negotiation	33,686	60,642	70,971	165,299
8. By other methods .. .. .	..	..	..	..
Total	42,705	72,345	122,237	237,287

WORKING DAYS LOST.

1. By private negotiation	13,796	4,767	57,116	75,679
2. By mediation not based on legislation	162	..	800	962
3. State legislation—				
(a) Under State Conciliation, etc., legislation ..	1,096	..	58,879	59,975
(b) By reference to State Government officials ..	..	..	125	125
4. Commonwealth and Commonwealth-State legislation—				
(a) Industrial Tribunals under—				
(i) Conciliation and Arbitration Act ..	..	315	58,423	58,738
(ii) Coal Industry Acts	10,166	..	..	10,166
(iii) Stevedoring Industry Act .. .. .	..	47	..	47
(iv) Other Acts .. .. .	..	..	50	50
(b) By reference to Commonwealth Government officials ..	..	11,803	..	11,803
5. By filling places of workers on strike or locked out ..	..	..	..	..
6. By closing down establishment permanently .. .. .	..	..	..	..
7. By resumption without negotiation	44,428	41,763	59,819	146,010
8. By other methods .. .. .	..	..	..	..
Total	69,648	58,695	235,212	363,555

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Two disputes which commenced in 1959 were not settled at the end of the year, therefore the totals shown do not agree with totals for other tables. (c) Includes workers indirectly involved. See note (b) to table at top of page 460.

F. WORKERS' COMPENSATION LEGISLATION.

A conspectus of the principal provisions of Workers' Compensation Acts in force in Australia at 30th June, 1958, will be found in *Labour Report* No. 46, pages 139–147.

G. LABOUR ORGANIZATIONS.

§ 1. Labour Organizations in Australia.

1. **Registration.**—(i) *Under Trade Union Acts.* In earlier issues of the Official Year Book (see No. 39, p. 448) reference was made to the registration of trade unions under the Trade Union Acts. In general the available information is inadequate for statistical purposes.

(ii) *Under State Industrial Legislation.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in earlier issues of the Official Year Book (see No. 39, p. 448).

(iii) *Under the (Commonwealth) Conciliation and Arbitration Act.* Under Part VIII. of the Conciliation and Arbitration Act 1904–1958, any association of employers in any industry who have, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, or any association of not less than 100 employees in any industry, may be registered. However, under the Public Service Arbitration Act an association of less than 100 employees may be registered as an organization, provided that its members comprise at least three-fifths of all persons engaged in that industry in the Service. Such organizations are included in the figures shown below. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1959, the number of employers' organizations registered under the provisions of the Conciliation and Arbitration Act was 61. The number of unions of employees registered at the end of 1959 was 157, with a membership of 1,504,091, representing 81 per cent. of the total membership of all trade unions in Australia.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organizations:—(i) the local independent; (ii) the State; (iii) the interstate; and (iv) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organization of interstate or federated unions vary greatly in character. In some unions, the State organizations are bound together under a system of unification with centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes.

(ii) *Number and Membership.* Returns showing membership by States as at 31st December each year are obtained for all trade unions and employee organizations. The affairs of single organizations are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. The following table shows the position at the end of each of the years 1957 to 1959.

TRADE UNIONS: NUMBER AND MEMBERSHIP.

State or Territory.	Number of Separate Unions.(a)			Number of Members.			Percentage Increase in Membership.(b)		
	1957.	1958.	1959.	1957.	1958.	1959.	1957.	1958.	1959.
New South Wales ..	235	231	234	737,358	731,375	741,610	— 0.2	— 0.8	1.4
Victoria ..	162	161	159	443,040	444,150	461,314	0.4	0.3	3.9
Queensland ..	133	131	129	310,821	313,744	322,150	— 1.3	0.9	2.7
South Australia ..	137	136	135	144,914	147,029	147,093	— 1.9	1.5	0.0
Western Australia..	156	156	154	114,095	114,494	114,497	3.3	0.3	0.0
Tasmania ..	98	98	97	51,951	51,508	54,136	— 1.4	— 0.9	5.1
Northern Territory	21	20	23	2,408	2,433	2,552	2.4	1.0	4.9
Australian Capital Territory ..	33	30	29	5,567	6,485	7,375	— 6.5	16.5	13.7
Australia ..	373	370	369	1,810,154	1,811,218	1,850,727	— 0.1	0.1	2.2

(a) Without interstate duplication. See letterpress below.

(b) On preceding year.

NOTE.—Minus sign (—) denotes decrease.

In the preceding table, under the heading "Number of Separate Unions", a union reporting members in a State is counted as one union within that State. The figures by States do not add to the Australian total (shown in the last line) because a union represented in more than one State is included in the figure for each State in which it is represented, but is counted only once in the Australian total.

The collection of statistics relating to the number of branches of trade unions, appearing in issues of the Official Year Book prior to No. 39, has been discontinued.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the years 1957 to 1959. Compared with that in 1939, membership in 1959 had increased by 102 per cent.

The industrial groups have been rearranged to conform, as nearly as may be, with the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in previous issues.

TRADE UNIONS: INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Group.	1957.		1958.		1959.	
	No. of Unions. (a)	No. of Members.	No. of Unions. (a)	No. of Members.	No. of Unions. (a)	No. of Members.
Agriculture, Grazing, etc.	3	62,028	3	61,120	3	62,681
Mining and Quarrying	12	42,221	12	38,332	12	40,795
Manufacturing—						
Engineering, Metal Works, etc. ..	15	270,798	15	275,273	15	280,848
Textiles, Clothing and Footwear ..	7	101,967	7	96,239	7	99,381
Food, Drink and Tobacco	35	107,999	34	110,563	34	116,727
Sawmilling, Furniture, etc.	6	45,460	7	42,631	7	46,544
Paper, Printing, etc.	6	43,312	6	45,455	6	48,226
Other Manufacturing	38	86,115	36	86,816	34	88,929
<i>Total Manufacturing</i>	107	655,651	105	656,977	103	680,655
Building and Construction	30	135,541	30	132,492	29	137,231
Railway and Tramway Services ..	25	141,566	25	137,438	25	136,444
Road and Air Transport	11	59,985	10	62,104	10	55,305
Shipping and Stevedoring	14	38,162	14	38,131	14	36,624
Banking, Insurance and Clerical ..	18	112,722	19	110,747	20	109,040
Wholesale and Retail Trade	12	73,238	12	74,736	12	77,839
Public Administration(b)	76	303,940	76	309,293	75	318,618
Hotels, etc. and Personal Service ..	12	39,196	12	40,441	13	41,709
Other Industries(c)	53	145,904	52	149,407	53	153,786
Total	373	1,810,154	370	1,811,218	369	1,850,727

(a) Without interstate duplication. See letterpress above. (b) Includes Communication and Municipal, etc. (c) Includes Professional Services; and Amusement, Sport and Recreation.

(iv) *Number of Members and Proportion of Wage and Salary Earners.* The following table shows the estimated percentages of wage and salary earners in employment who are members of trade unions. As current estimates of wage and salary earners in employment do not include employees engaged in rural industry or females in private domestic service, the percentages have been calculated on figures obtained by adding to the end of year estimates the number of employees in rural industry and females in private domestic service recorded at the Census of 30th June, 1954. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA.

Year.	Number of Members.			Proportion of Total Wage and Salary Earners. (Per cent.)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1955	1,464,016	337,846	1,801,862	66	42	59
1956	1,470,606	340,802	1,811,408	66	42	59
1957	1,463,985	346,169	1,810,154	65	42	59
1958	1,465,682	345,536	1,811,218	65	41	58
1959	1,494,669	356,058	1,850,727	65	41	58

(v) *Interstate or Federated Trade Unions.* The following table gives particulars of the number and membership of interstate or federated trade unions in 1958 and 1959:—

INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
Number of Unions	1958 .. 13	12	20	33	63	141
	1959 .. 13	9	23	35	60	140
„ „ Members	1958 .. 31,348	64,983	206,572	385,246	887,929	1,576,078
	1959 .. 31,923	60,642	224,737	396,005	900,910	1,614,217

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory and/or in the Australian Capital Territory.

The number of organizations operating in two or more States increased from 116 in 1939 to 140 in 1959, and the ratio of the membership of such organizations to the total membership of all organizations rose from 83 to 87 per cent. during the same period.

3. *Central Labour Organizations.*—Delegate organizations, consisting of representatives from a group of trade unions, have been established in each of the capital cities and in a number of industrial centres elsewhere. Their revenue is raised by means of a *per capita* tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council. In Western Australia, a unified system of organization extends over the industrial centres throughout the State. In this State, there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, with which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are generally independent bodies.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated therewith in each State and Territory at the end of the years 1958 and 1959:—

CENTRAL LABOUR ORGANIZATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Total.
Number of Councils—									
1958	11	9	12	6	10	5	..	1	54
1959	11	9	12	6	10	5	..	1	54
Number of Unions and Branch Unions affiliated—									
1958	297	269	171	150	400	113	..	23	1,423
1959	297	284	178	160	384	111	..	23	1,437

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

A Central Labour Organization, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The A.C.T.U. consists of affiliated unions and affiliated Metropolitan and/or State Labour Councils and Provincial Councils. The Metropolitan or State Labour Council in each State is the State Branch of the A.C.T.U. and has the right to appoint one representative to act on the executive of the Council. In addition to the representatives of the State Branches of the A.C.T.U., six delegates are elected by and from Congress, one from each of the following industry groups of unions:—Building, Food and Distributive Services, Manufacturing, Metal, Services, Transport. To this Executive are added the four officers, namely, President, two Vice-Presidents and Secretary, who are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in each alternate year. Special meetings of Congress shall be held whenever deemed advisable by decisions of the Executive, as approved by the majority of its branches, or by resolution of unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialization of industry, i.e., production, distribution and exchange, and the utilization of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security and full cultural opportunities for all. The methods to be adopted are:—the closer organization of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the amalgamation of unions with a view to the establishment of one union in each industry; the consolidation of the Australian Labour Movement, with the object of unified control, administration and action; the centralized control of industrial disputes; educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference.

All the major unions are affiliated with the A.C.T.U., with the exception of the largest, the Australian Workers' Union, which is itself virtually a central organization of branches catering in the main for employees in rural and constructional pursuits.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions whose members' interests are closely connected because of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

§ 2. International Labour Organization.

The International Labour Organization (I.L.O.) was established on 11th April, 1919, as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII. of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939–45 War, the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946, the Organization became the first of the specialized agencies of the United Nations. Under the terms of agreement, the United Nations recognizes the I.L.O. as a specialized agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organization, social security and other aspects of social policy. The Organization has three basic parts. These are the International Labour Conference, its highest

authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organization. The Conference is composed of delegations from the Member States of the Organization. At the end of 1959, there were 80 Member States, each of which is entitled to be represented by four delegates—two Government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty governments and ten employers' and ten workers' representatives. Of the twenty government representatives, half are from the ten countries of major industrial importance and ten are elected by the remaining governments. These latter ten government representatives and the ten employers' and ten workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Since the 1939-45 War, Australia has alternated as a Member and Deputy Member of the government group, and is at present a Deputy Member. Particulars are given in *Labour Report* No. 47 of the proceedings of International Labour Conferences up to the 42nd Session, held in Geneva in June, 1959. For details of I.L.O. conventions ratified by Australia see *Labour Report* No. 47, Chapter V.

CHAPTER XIII.

TRADE.

§ 1. Introduction.

Constitutional Powers.—By the Commonwealth of Australia Constitution Act, section 51 (i.), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1st January, 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (*see* pp. 18–19).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—The principal Acts affecting overseas trade at present in force are: The Customs Act 1901–1959; Customs Tariff 1933–1959; Customs Tariff (Canadian Preference) 1931 and Customs Tariff (Canadian Preference) 1934–1959; Customs Tariff (Industries Preservation) Act 1921–1957; Customs Tariff (New Zealand Preference) 1933–1959; Customs Tariff (Papua and New Guinea Preference) 1936–1959; Customs Tariff (Federation of Rhodesia and Nyasaland Preference) 1956–1958; Customs Tariff (Primage Duties) 1934–1958; Trading with the Enemy Act 1939–1957.

The Customs Act is the administrative Act under which the Department of Customs and Excise operates, while the Customs Tariffs provide the statutory authority for imposing the actual rates of duty operative from time to time.

2. **The Customs Tariff.**—(i) *General.* The first Commonwealth Customs Tariff was introduced by Resolution on 8th October, 1901, from which date uniform duties came into effect throughout Australia. The tariff has since been extensively amended. The Act at present in operation is the Customs Tariff 1933–1959.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to imports from certain countries of the British Commonwealth. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

Australia has three classes of tariff—the British Preferential Tariff, the Intermediate Tariff and the General Tariff.

(ii) *British Preference.* British Preferential Tariff rates of duty apply to goods the produce or manufacture of the United Kingdom, provided that such goods comply with the laws and statutory regulations in force at the time affecting the grant of preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. For the purpose of the preferential tariff, the following goods are deemed by section 151A of the Customs Act 1901–1959 to be the produce or manufacture of the United Kingdom, provided the final process of their production or manufacture was performed in that country:—

- (a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes:—
 - (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia;
 - (ii) Imported unmanufactured raw materials;
 - (iii) Imported manufactured raw materials as determined by the Minister.
- (b) Goods of the factory or works cost of which not less than 75 per cent. is represented—
 - (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.

- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than 25 per cent. (or 50 per cent. if the Minister so determines) is represented—
- (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.

With the exception of a relatively small number of commodities which carry special rates of duty, the British Preferential Tariff has also been extended; as a result of separate trade agreements, to Canada and New Zealand and by tariff legislation to the Territory of Papua and New Guinea, and the abovementioned preference conditions apply *mutatis mutandis* to each of those countries, except that in respect of New Zealand the percentage content of goods, under clause (b). of the said conditions is 50 per cent. of New Zealand and Australian labour and materials or 75 per cent. of New Zealand and United Kingdom or of New Zealand, Australian and United Kingdom labour and materials. In relation to specified goods, the British Preferential Tariff also applies to Ceylon, Ghana, the Federation of Malaya, Singapore, the Federation of the West Indies, and most of the British non-self-governing colonies, protectorates and trust territories.

(iii) *Intermediate Tariff.* The Intermediate Tariff has been a feature of the Australian Tariff for a considerable number of years, although its effective application dates only from 1st January, 1937, consequent upon the conclusion of trade agreements with Belgium, Czechoslovakia and France in 1936. The countries to which the Intermediate Tariff applies include those countries with which Australia has concluded trade agreements (including tariff negotiations pursuant to the General Agreement on Tariffs and Trade) and countries which accord Australia reciprocal most-favoured-nation tariff treatment by reason of agreements between those countries and the United Kingdom. The Intermediate Tariff has also been extended to some countries to which Australia has no formal obligation to accord most-favoured-nation treatment. The countries and the particular tariff items to which the Intermediate Tariff applies are specified by order made in pursuance of section 9A, of the Customs Tariff 1933–1959.

(iv) *General Tariff.* The General Tariff applies to goods other than those to which the British Preferential Tariff or Intermediate Tariff or special rates under trade agreements apply.

3. *Primage Duties.*—In addition to the duties imposed by the Customs Tariff, *ad valorem* primage duties at rates of 4 per cent., 5 per cent. or 10 per cent. are charged on some goods according to the type of goods and origin thereof under the Customs Tariff (Primage Duties) 1934–1958. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island and the Territory of Papua and New Guinea are exempt from primage duty.

4. *Tariff Board.*—The Tariff Board Act 1921–1958 provides for the appointment of a Tariff Board consisting of seven members, two, but not more than three, of whom shall be officers of the Commonwealth Public Service. Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the Government on matters relating to the protection and encouragement of Australian industry and to the Customs and Excise Tariffs.

The Chairman of the Board has the duty to ensure the efficient and orderly conduct of the business of the Board. Provision is made for the appointment of a Deputy Chairman to whom the Chairman may delegate his powers, duties and functions under the Act.

The more important matters which the Minister of State for Trade shall refer to the Board for inquiry and report include:—the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; any proposal for the application of the British Preferential Tariff or the Intermediate Tariff to any part of the British Commonwealth or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition the Minister may refer the following matters to the Tariff Board for inquiry and report:—the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report, the following matters:—the classification of goods in the Customs Tariff or Excise Tariff and any matter in connexion with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matter in respect of which action may be taken under the Customs Tariff (Industries Preservation) Act 1921–1957.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921-1957 shall be taken in public on oath.

5. Industries Preservation.—The Customs Tariff (Industries Preservation) Act 1921-1957 provides that, after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry. In the case of goods sold for export to Australia at a price less than the fair market value for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and the fair market value, or the difference between the price at which the goods were sold and a reasonable price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight the dumping freight duty shall be an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. In respect of goods exported to Australia upon which a subsidy, bounty or other financial assistance is paid or given directly or indirectly upon the production, manufacture, carriage or export of those goods, a countervailing duty shall be collected equal to the amount of the subsidy, bounty or other financial assistance; and in the case of any other goods—an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate.

Special duties may also be collected if dumped or subsidized goods are imported to the detriment of the trade in the Australian market of a third country.

The Act also provides for the collection of an emergency duty on goods which enter Australia under conditions which cause or threaten serious injury to Australian industries or to industries in a third country whose exports enter Australia under preferential tariff. The amount of emergency duty payable is the equivalent of the difference between the landed duty-paid cost of the goods and a reasonably competitive landed duty-paid cost.

The Act provides that the Minister for Customs and Excise may publish a notice in the *Gazette* specifying the goods upon which the special emergency duties under this Act shall thereupon be charged and collected.

6. Trade Descriptions.—The Commerce (Trade Descriptions) Act 1905-1950 gives power to require the application of a proper trade description on certain prescribed goods imported into or exported from the Commonwealth. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

7. Import Controls.—*Customs (Import Licensing) Regulations.* A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the Customs (Import Licensing) Regulations, being Statutory Rules 1939 No. 163, issued under the Customs Act 1901-1936.

Between 1939 and 1945, licensing controls on imports from both sterling and non-sterling sources were progressively intensified. With the end of the War it was possible to progressively relax the restrictions and by March, 1952, goods from the non-dollar area (excluding Japan for which special provisions applied until July, 1957) were virtually free from import licensing controls.

During the financial year 1951-52, following a fall in the price of wool and a large increase in the volume of imports, Australia incurred a substantial deficit in overall payments on current account. Oversea reserves fell rapidly in the latter part of 1951 and early 1952 endangering Australia's external financial position to such a degree that it became necessary on 8th March, 1952, to apply the Customs (Import Licensing) Regulations to imports from all sources with the exception of goods originating in Papua, New Guinea and Norfolk Island.

The extension of the restrictions on 8th March, 1952, was made under the authority of the above regulations, which had continued in force after the war. Those regulations were subsequently replaced by new Customs (Import Licensing) Regulations made under the Customs Act 1901-1954 on 16th December, 1956. The new Regulations continued to provide, *inter alia*, that the importation of any goods (not being goods which are excepted from the application of the Regulations) is prohibited unless—

- (a) a licence under these Regulations to import the goods is in force; and
- (b) the conditions and restrictions (if any) to which the licence is subject are complied with.

The object of import licensing has been to limit the rate of imports to a ceiling figure, determined by the Government, in order that payments for imports do not involve an excessive drawing on Australia's overseas exchange reserves. To achieve the financial objectives of the controls, imports were divided into a number of categories to which special licensing treatment was accorded (largely by the establishment of quotas for individual importers within each category). In general, the nature of goods and their relative essentiality to the Australian economy were taken into account in determining the licensing rate for particular goods.

Since March 1952, import restrictions have been relaxed and intensified broadly in line with changes in Australia's balance of payments position.

The import controls have been administered without discrimination as to country of origin, with the exception of those relating to imports from Japan and the Dollar Area. The special restrictions against Japanese imports were removed in July, 1957, and in recent years Australia progressively removed discrimination against imports from the Dollar Area. By January 1960, approximately 95 per cent. of total imports were not subject to dollar discrimination.

In accordance with the principle of relaxing and removing controls in the light of developments in Australia's balance of payments position, large-scale licensing changes involving an almost complete abolition of controls were made as from 23rd February, 1960. As a result of these changes some 90 per cent. of total imports are exempt from control. On 1st April, 1960 timber was also added to the exempt list.

Licensing was retained on the bulk of the items which remain under control, for the purpose of providing licensing statistics which have been very useful in the administration of the Japanese Trade Agreement. They will remain under control until, after consultation with industry and commerce, suitable alternative arrangements can be made.

A few other items for which special problems exist, will be removed from control when the problems associated with them have been resolved.

In respect of most of the items which continue to be licensed, provision was also made under the recent relaxations for licensing at a higher rate.

The Government has announced its intention of removing this remaining element of licensing control as soon as possible.

The retention of control over a small field of trade does not imply any departure from the Government's policy of using the Customs Tariff and the Tariff Board machinery as the normal method of protecting economic and efficient Australian industries from import competition.

With the exception of motor vehicles of North American origin, which will be exempted from control as from 1st October, 1960, there is now no discrimination as to country of origin in the administration of import controls.

The administration of the import controls is the responsibility of the Department of Trade, although the actual issue of import licences is a function of the Department of Customs and Excise at the various ports of the Commonwealth.

8. Export Control.—(i) *Commodity Control.* Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by—(a) prohibiting the exportation of goods absolutely; (b) prohibiting the exportation of goods to a specified place; and (c) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

(ii) *Monetary Control—Banking Act 1959.* As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III. of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV. of the *Banking Act 1959* to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations and may be subject to such further terms and conditions as are determined or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent

of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds £A50, or where jewellery and other articles of high intrinsic worth either exceed £A1,000 in value or have not been the personal property of the passenger for at least twelve months.

9. Trade Agreements.—(i) *The United Kingdom.* The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20th August, 1932. Under this agreement, Australia secured preferences in the United Kingdom market for a wide range of Australian export commodities and in return incurred obligations in respect of tariff levels and the grant of preference to United Kingdom goods.

A new Trade Agreement, designed to replace the original agreement and correct the unbalance in benefits which had emerged in the 25 years of its operation, was signed in Canberra on 26th February, 1957. Briefly, the new agreement preserved security for Australian exports in the United Kingdom market, but lowered the obligatory margins of preference which Australia extends to the United Kingdom.

(ii) *Canada.* The existing trade agreement between Canada and Australia came into force on 3rd August, 1931. The basis of the agreement is, generally, the mutual accord of British Preferential Tariff treatment. The exceptions to this general rule are specified in the schedules to the agreement.

The Customs Tariff (Canadian Preference) 1931 and the Customs Tariff (Canadian Preference) 1934–1959 give effect to the agreement so far as Australia is concerned.

(iii) *New Zealand.* The existing trade agreement between Australia and New Zealand came into force on 1st December, 1933. The basis of the agreement is, generally, the mutual accord of British Preferential Tariff treatment. The exceptions to this general rule are listed in the schedules to the agreement.

The Customs Tariff (New Zealand Preference) 1933–1959 gives legislative effect to the provisions of the agreement.

(iv) *Federation of Rhodesia and Nyasaland.* During June, 1955, a trade agreement was negotiated with the Federation. Australia's principal undertaking was to grant an exclusive tariff preference to the Federation on unmanufactured tobacco, a concession formerly accorded only to Southern Rhodesia, under a trade agreement now terminated. The Federation accorded preferential tariff treatment on a wide range of Australian export products, including wheat and powdered and condensed milk.

(v) *Federation of Malaya.* A trade agreement with the Federation was signed on 26th August, 1958, and came into force immediately. The agreement gives an assurance that Australia's traditional flour trade will be protected from subsidised or dumped competition. An undertaking is given that any tariff preferences Malaya accords will be extended also to Australia. Australia guaranteed free entry for natural rubber so long as the Papua-New Guinea crop is absorbed and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment.

(vi) *Japan.* An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6th July, 1957, in Japan. Formal ratification took place in Canberra on 4th December, 1957, following approval of the agreement by the Commonwealth Parliament and the Japanese Diet. The agreement will remain in force until 5th July, 1960, and thereafter unless prior notice of termination is given by either Government.

The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges and import and export licensing. Japan will not be entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories.

All Japanese goods are now entitled to the most-favoured-nation rate of duty on importation into Australia, whereas previously the general rate applied. The reductions involved have not been significant. Japan has also been placed on an equal basis with other non-dollar countries under the import licensing system. Prior to the agreement certain goods, when of Japanese origin, could be imported only within specified limits.

Australia received certain specific undertakings. Japan agreed:—

- (a) To accord Australian wool the opportunity of competing in the global quota for wool for not less than 90 per cent. of the total foreign exchange allocation for wool each year and not to restrict the total foreign exchange allocation for wool beyond the extent necessary to safeguard Japan's external financial position and balance of payments;
- (b) to take no action to vary the present level of duty on wool imports from Australia for a period of three years from date of signature;
- (c) to admit Australian wheat and barley on a competitive and non-discriminatory basis;
- (d) to accord Australian sugar the opportunity of competing for not less than 40 per cent. of the total foreign exchange allocation for sugar;
- (e) to include Australia as a permitted source of supply for beef tallow and cattle hides on the Automatic Approval (licensing) list;
- (f) to admit Australian dried skim milk on a competitive and non-discriminatory basis;
- (g) to make reasonable provision for the import of Australian dried vine fruits (raisins, currants and sultanas) in each year of the three-year period.

It was agreed that before the end of the initial three-year period of the agreement the two Governments would explore the possibility of applying the General Agreement on Tariffs and Trade between the two countries.

Provision exists for either country to suspend obligations under the agreement to the extent and for such time as may be necessary to prevent serious injury to domestic producers as a result of imports of like or directly competitive products from the other country. The Australian Government has appointed an Advisory Authority whose function is to advise the Minister for Trade whether Australian industry is threatened with serious damage as a result of the agreement.

(vii) *Other Countries.* Australia has entered into bilateral trade agreements with the Union of South Africa, Brazil, Czechoslovakia, France, Greece and Switzerland. Summaries of the texts of these agreements were given in earlier issues of the Official Year Book. In 1951, Australia entered into a trade agreement with Israel under which each country undertook to accord most-favoured-nation tariff treatment to imports from the other. A similar agreement with Iceland was concluded in 1952.

(viii) *The General Agreement on Tariffs and Trade (G.A.T.T.).* The General Agreement on Tariffs and Trade is an international trade agreement which has been in operation since 1st January, 1948. Australia is one of the original contracting parties to the General Agreement on Tariffs and Trade.

The objectives of the G.A.T.T. include the expansion of world trade and the raising of living standards throughout the world. Its members work towards these objectives by the reduction of tariffs and other barriers to trade and of discrimination between countries through negotiations on a reciprocal and mutually advantageous basis. The essential features of the G.A.T.T. are the schedules of tariff concessions which its members have agreed to apply in tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, a code of agreed commercial policy rules for fair international trading.

G.A.T.T. is at present being applied pursuant to the Protocol of Provisional Application under which its members apply the commercial policy rules (contained in Part II. of the Agreement) to the fullest extent consistent with legislation existing at the time of becoming members.

Four series of tariff negotiations have been conducted under the provisions of the General Agreement. As a result of these negotiations Australia has obtained tariff concessions on almost all the principal products of which she is an actual or potential exporter to the individual countries concerned. These concessions were a result both of direct negotiation by Australia and of negotiations by other countries—in the latter case benefits occur through the operation under the Agreement of the most-favoured-nation principle.

In 1954–55 some of the provisions of the G.A.T.T. were revised. The revised G.A.T.T. contains tighter provisions on non-tariff barriers to trade. These barriers are in many respects more significant for some of the export items of interest to Australia. The revised G.A.T.T. also gives more freedom for countries like Australia to revise individual tariff items which had been "bound" against increase in tariff negotiations conducted under the G.A.T.T.

There are at present (October, 1959) 37 Contracting Parties to the Agreement comprising most of the world's larger trading nations. The Contracting Parties periodically hold plenary sessions to deal with questions arising out of the administration of the Agreement. The 14th Session was held at Geneva in May, 1959, and the 15th Session in Japan in October–November, 1959.

§ 3. Imperial Preference in the United Kingdom.

1. Preferential Tariff of the United Kingdom.—A brief summary of the preferential tariff of the United Kingdom in the years prior to 1931 was published in Official Year Book No. 43, page 328.

By 1931, the United Kingdom imposed duties on a fairly wide range of goods, provision being made in all cases for preferential treatment to Empire goods. The important preferences for Australia were those on sugar, dried fruit, wine, and jams and jellies. Even at this time, however, the United Kingdom adhered to the principles of free trade and by far the greater part of imports was free of duty.

In order to counteract the flood of dumping which followed the collapse of world trade in 1929–30, the United Kingdom introduced emergency tariff legislation in 1931. *Ad valorem* duties were imposed on almost all goods imported into the United Kingdom with the exception of certain raw materials, goods from Empire countries being exempt from these duties. These temporary measures were embodied in the Import Duties Act of March, 1932, by the enactment of which the United Kingdom finally abandoned free trade as a policy. This Act provided for the free entry for Empire goods pending the conclusion of some permanent agreement. The Ottawa Agreements Act of November, 1932, emerged from the Imperial Economic Conference held in Ottawa and embodied agreements concluded between the United Kingdom and the Dominions, Newfoundland and Southern Rhodesia. For the purpose of considering the present preferences enjoyed by Australia in the United Kingdom, it is expedient to regard the Import Duties Act and the Ottawa Agreements Act as complementary.

The Import Duties Act provided for the imposition of a general *ad valorem* duty of 10 per cent. on all imports with certain exceptions (i.e., those on the Free List and those already dutiable under previous enactments). Additional duties could be imposed and items on the Free List subjected to duty, and in fact the range of items subject to duties under this Act has been extended from time to time since its enactment.

The freedom of Empire goods from these duties was guaranteed under the Ottawa Agreements Act, which also provided for the imposition of new duties on imports from foreign, but not Empire, countries of a number of products of special interest to the Empire countries concerned. Whilst free entry was guaranteed to Empire producers on a wide range of products, the margins of preference thereby applicable were not bound, and the duties could be varied up or down by the United Kingdom Government without the consent of Empire countries. On a selected range of items, however, which are specified in the schedules to the Ottawa Agreements Act, the duties could not be varied by the United Kingdom without the consent of the other party to the respective agreement.

Since 30th October, 1947 Canada and the United Kingdom have, by an exchange of letters, recognized the rights of their respective Governments to reduce or eliminate the preferences they accord one another without prior consultation or consent.

In 1947 the United Kingdom and Australia adhered to the General Agreement on Tariffs and Trade, which prohibits increases in tariff preferences by either country. This rule, as is the case with the other provisions of the General Agreement, may be waived by a two-thirds majority of the signatories to the agreement.

2. The Australia-United Kingdom Trade Agreement.—The provisions and history of the original Australia-United Kingdom Agreement (Ottawa Agreement) were published in Official Year Book No. 43, page 329.

The major provisions of the current agreement (signed in Canberra on 26th February, 1957) which affect Australia's position in the United Kingdom market are as follows:—

- (a) Continued free entry for those Australian goods in which Australia has an active trade interest, and which were accorded free entry immediately prior to the new agreement.

- (b) A guaranteed minimum margin of preference in the United Kingdom Tariff on all items so treated in the previous agreement plus an extension of this guarantee to several items on which the margin of preference, although in force, was not bound to Australia. This latter group comprised currants, egg powder and egg pulp, jam, rice, tomato juice, pineapple juice and coconut oil. A selection of the items on which Australia receives a bound margin of preference and the extent of that preference is as follows. (all values in sterling):—Butter (15s. a cwt.); cheese (15 per cent. *ad val.*); canned peaches, pears and apricots (12 per cent. *ad val.*); raisins (8s. 6d. a cwt.); eggs in shells (1s. to 1s. 9d. a great hundred (10 dozen)); milk powder (6s. a cwt.); sweetened condensed milk (5s. a cwt.); apples (4s. 6d. a cwt. in season); honey (5s. a cwt.); flour (10 per cent. *ad val.*); light wine (2s. a gallon); heavy wine (10s. a gallon at present duty rate).
- (c) All rights under the Ottawa Agreement in respect of meat are maintained.
- (d) Australia receives an assured wheat market of at least 750,000 tons f.a.q. wheat or flour equivalent annually. Any Australian high-protein wheat sold to the United Kingdom is not counted against this obligation.
- (e) There is provision for full consultation between the two Governments on such matters as agricultural production and marketing, transport and communication, the disposal of surpluses and restrictive business practices.
- (f) The two Governments declared their intention to introduce legislation which will enable them to impose anti-dumping or countervailing duties where material injury is caused or threatened to the other party.
- (g) The agreement shall be the subject of re-negotiation between the two Governments in 1961.

3. Recent Developments affecting the Operation of the Trade Agreement.—The effect of increases in commodity prices in the post-war period has been to reduce the effective value of those preference margins which are expressed in terms of British currency ("specific margins"). The commodities affected are butter, eggs, canned apples, loganberries, pineapples, tropical fruit salad, raisins, dried apricots, sugar, lactose, and wines. The following table shows, for selected items, how the *ad valorem* incidence of specific preference margins originally negotiated in 1932 and rebound in the 1957 agreement has been reduced by increases in the average value of the commodities on which they are granted.

IMPERIAL PREFERENCE: CHANGES IN VALUE OF PREFERENCES.

Ad Valorem Incidence of Specific Preferences Received by Australia in the United Kingdom.

Commodity.	Preference Margin.	Ad Valorem Incidence. (a) (Per cent.)				
		1938.	1947.	1954.	1956.	1958.
Sugar, raw ..	£3 14s. 8d. a ton ..	35.8	12.2	9.4	8.7	10.5
Butter ..	15s. a cwt. ..	13.3	7.6	4.3	4.6	6.5
Canned pineapple ..	5s. a cwt. ..	21.4	5.5	2.9	3.5	4.3
Currants ..	2s. a cwt. ..	7.2	2.8	2.4	1.8	1.8
Raisins ..	10s. 6d. a cwt. to 1947; 8s. 6d. a cwt. from 1948	31.2	13.1	9.7	8.0	6.2
Honey ..	7s. a cwt. to 1938; 5s. a cwt. from 1939	19.0	6.8	5.4	3.8	4.8
Milk, dried whole ..	6s. a cwt. ..	8.7	4.7	2.9	3.1	3.2
Milk, dried skim ..	6s. a cwt. ..	20.1	7.4	7.0	7.3	8.6
Apples ..	4s. 6d. a cwt. ..	26.4	9.9	5.9	5.4	4.8
Pears ..	4s. 6d. a cwt. ..	19.5	6.7	5.3	4.9	5.1

(a) The *ad valorem* incidence of a preference is calculated by expressing the specific margin of preference (in £ sterling a cwt., a ton, etc.) on a particular commodity as a percentage of the average unit value (in £ sterling a cwt., a ton, etc.) of United Kingdom imports of that commodity from all sources in the year concerned.

§ 4. Trade Commissioner Service.

The stimulation of interest abroad in Australia's exports is an important Government activity in which the Australian Trade Commissioner Service plays a prominent part. The origin of the Service dates back to 1921, when the first Trade Commissioner was appointed to Shanghai. In the following year, a second Commissioner was appointed to Singapore. These appointments were, however, terminated shortly afterwards.

In 1929, a Trade Commissioner post was opened at Toronto. Wellington was opened five years later. The Trade Commissioners Act 1933 provided for the establishment of an Australian Government Trade Commissioner Service. In 1935 official trade representation was established at Batavia (now Djakarta), Shanghai and Tokyo. Cairo, New York and Calcutta posts were opened between 1937 and 1939 and the Singapore post was established in 1941.

After the war, the service increased steadily to take care of Australia's expanding export interests and the growing diversity of our export commodities, and in February, 1960, there were 30 Trade Commissioner posts in 21 countries. New posts are about to be opened at Accra (Ghana) and Nairobi (Kenya).

In 1957 Australia's official commercial representation overseas was extended by the introduction of a system of Government Trade Correspondents. These men, who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of the nearest Trade Commissioner and acts as a point of local contact for him.

The first two Australian Trade Correspondents were appointed in 1957 at Montevideo (Uruguay) and Nairobi (Kenya). In 1958 four more were appointed at Nadi (Fiji), Honolulu, Mauritius and Mexico City. Further limited expansion of this form of official commercial representation is contemplated. The Australian Trade Correspondent at Nairobi will shortly be replaced by an Australian Government Trade Commissioner.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organizations include the following:—

- (a) Surveys of market prospects;
- (b) Advice on selling and advertising methods;
- (c) Arranging introductions with buyers and agents;
- (d) Providing reports on the standing of overseas firms;
- (e) Advice and assistance to business visitors;
- (f) Helping to organize and carry through trade missions, trade displays, newspaper supplements and other promotion and publicity media;
- (g) Providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements and other factors affecting the entry and sale of goods.
- (h) Helping to attract desirable investment.

In some countries, Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission (the Federation of West Indies, Hong Kong, the Federation of Rhodesia and Nyasaland and Sweden) he is called upon to act as the Australian representative.

Trade Commissioners usually enter the Service from either the commercial world or the Public Service, and applications for entry into the Service are called for periodically by public advertisement. In the more important posts it is the practice for the Trade Commissioner to share his duties with an Assistant Trade Commissioner, who is selected to be trained in the Service and qualify at a later stage for appointment as a Trade Commissioner. These staffing arrangements are designed to enable the Government to draw upon experienced and able executives in both private enterprise and the Public Service, and at the same time to build up a body of competent personnel to carry out a policy of vigorous expansion in the field of overseas trade.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade (as distinct from the diplomatic and consular services, administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attaché).

The overseas trade representation is shown in Chapter XXX.—Miscellaneous.

§ 5. Export Payment Insurance Corporation.

The Export Payment Insurance Corporation Act No. 32 of 1956, established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts.

The Corporation is charged to be self-supporting, that is, over a period it is to operate at neither a profit nor a loss. It operates on principles similar to those of any other form of insurance in as much as in return for payment of a premium the exporter can claim on the Corporation in the event of non-payment by his buyer for any of the reasons set out in his policy. There is no overlap with normal insurance facilities since the Corporation does not cover risks which can normally be insured with commercial insurers.

The main risks of loss against which the Corporation insures are the "commercial" risks of the insolvency or protracted default of the buyer and "political" risks. The latter include exchange transfer delays; the imposition of Government regulations which prevent the import of goods into the buyer's country; war or revolution in the buyer's country; and generally any other cause not being within the control of the exporter or the buyer, and which arises from events occurring outside Australia. Prior to December, 1959, the Corporation could extend cover only to 85 per cent. for all types of risks insured. From that time, however, cover on the "political" risks was increased to a maximum of 90 per cent. for the amount of loss in the pre-shipment period and a maximum of 95 per cent. in the post-shipment period. The cover for "commercial" risks remains at 85 per cent.

The initial capital of the Corporation was £500,000 and the maximum liability limit of the Corporation was £25,000,000. In April, 1959, these limits were doubled to £1,000,000 and £50,000,000 respectively to enable the Corporation to meet fully the demands of the Australian exporters for this facility.

The Corporation itself does not provide finance for exporters, but the stated policy of the trading banks is that E.P.I.C. guarantees considerably reduce the risks involved in the export trade, and this can assist the exporter in obtaining such finance as he requires.

Since the first policy was issued in September, 1957, Australian exporters have made increasing use of the facilities of the Corporation. On 31st December, 1959, the Corporation had policies current to the value of over £26,000,000—an increase of over £10,000,000 on the figure for 31st December, 1958. The Corporation has issued policies covering exports to over 100 countries, and has insured a wide range of Australian exports.

Consultative Council. A Consultative Council of leading figures in the fields of insurance, commerce and industry has been appointed to advise the Corporation on its activities.

§ 6. Method of Recording Imports and Exports.

1. *Source of Statistics.*—Overseas trade statistics are compiled from documents obtained under the Customs Act 1901–1959 and supplied to this Bureau by the Department of Customs and Excise.

2. *Customs Area.*—The Customs Area, to which all overseas trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia. Non-contiguous territories are treated as outside countries, and trade transactions between Australia and these non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e., the trade of Australia with each particular country is separately recorded and tabulated.

3. **The Trade System.**—There are two generally accepted systems of recording overseas trade statistics, namely, (a) special trade and (b) general trade, and statistics of both are published by the Bureau, although greater emphasis is placed on general trade. The Statistical Office of the United Nations defines the two systems as follows:—

- (a) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption and withdrawals from bonded warehouses or free zones for domestic consumption, transformation or repair. Special exports comprise exports of national merchandise, namely, goods wholly or partly produced or manufactured in the country, together with exports of nationalized goods. (Nationalized goods are goods which, having been included in special imports, are then exported.)
- (b) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. Direct transit trade and trans-shipment under bond are excluded. General exports are the combined total of national exports and re-exports of imported merchandise including withdrawals from bonded warehouse or free zone for re-export.

The tables which follow refer to general trade, except for those appearing in § 17, para. 2, which refer to imports cleared for home consumption.

4. **Statistical Classification of Imports and Exports.**—Statistics of overseas imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were compiled according to the revised classification which came into operation on 1st July, 1945. This classification is designed to allow for the inclusion of items which become significant with varying trade conditions, and in 1958–59 provided for over 2,000 import items and over 1,000 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to overseas trade have been shown according to the financial year (July to June). Prior to that date, the figures related to the calendar year. A table is included in § 18 showing the total value of imports and exports in the calendar years 1955 to 1959 inclusive.

6. **Valuation.**—(i) *Imports.* The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*. Since 15th November, 1947, the value for duty of goods imported into Australia has been the f.o.b. value in Australian currency instead of the British currency f.o.b. value plus 10 per cent.

Section 154 (1) of the Customs Act 1901–1959 provides that “when any duty is imposed according to value, the value for duty shall be the sum of the following:—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher; and
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export”.

“Current domestic value” is defined as “the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country”. All import values shown throughout this and other chapters of this issue of the Official Year Book are therefore uniform f.o.b. values at port of shipment in Australian currency.

(ii) *Exports.* Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally:—

- (a) Goods sold to overseas buyers before export—the f.o.b. port of shipment equivalent of the price at which the goods were sold (e.g., as regards wool, the actual price paid by the overseas buyer plus the cost of all services incurred by him in placing the wool on board ship).

- (b) Goods shipped on consignment—the Australian f.o.b. port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. port of shipment equivalent of the current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. port of shipment equivalent of the price ultimately received).

Exporters are required to show all values in terms of Australian currency, and to include the cost of containers.

An account of the bases of valuation in operation prior to 1st July, 1937, was given on page 469 of Official Year Book No. 39.

7. Inclusions and Exclusions.—(i) *Ships' and Aircraft Stores.* Prior to 1906, goods shipped in Australian ports on oversea vessels as ships' stores were included as exports. From 1906, ships' and subsequently aircraft stores have been specially recorded as such, and omitted from the tabulation of exports. A table showing the value of these stores shipped each year since 1954–55 is shown on page 497.

(ii) *Outside Packages.* Outside packages (containers, crates, etc.) have always been included as a separate item in the tabulation of imports but, except for those received from the United Kingdom, a classification according to country of origin has been available only since 1950–51. For exports, however, the value recorded for each item includes the value of the outside package.

(iii) *Trade on Government Account.* Imports and exports on Government account are treated as normal transactions and are an integral part of oversea trade transactions.

(iv) *Currency.* Notes and coins of base metal are included in the oversea trade statistics at their commodity value only.

(v) *Gold Content of Ores and Concentrates.* The value of ores and concentrates imported and exported includes the value of the gold content. The latter is not recorded separately for purposes of inclusion in imports and exports of gold.

(vi) *Personal Effects.* Migrants' effects are included in imports and exports.

8. Countries to which Trade is Credited.—(i) *Imports.* From 1st January, 1905, in addition to the record of the countries whence goods arrived directly in Australia, a record of the countries of their origin was kept, as it was considered that classification of imports according to country of origin was of greater interest and value than classification according to country of shipment. Up to and including the year 1920–21, imports continued to be classified both according to country of shipment and according to country of origin, but the former tabulation was discontinued as from the year 1921–22.

(ii) *Exports.* In the export sections of tables in this chapter, "country" refers to country of consignment.

9. Pre-Federation Records.—In the years preceding Federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. Imports and exports for years prior to Federation may be found in issues of the Official Year Book prior to No. 41. On the introduction of the Customs Act 1901 the methods of recording values were made uniform throughout the States.

§ 7. Total Oversea Trade.

1. Including Gold.—The following table shows the total trade (including gold) of Australia with oversea countries from 1901 to 1958–59. To save space, the period 1901 to 1950–51 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in Official Year Book No. 40 and earlier issues, but it should be borne in mind that the figures for imports in issues prior to No. 37 were in British currency.

In this chapter the values in all tables of imports and exports are shown in Australian currency f.o.b. at port of shipment.

OVERSEA TRADE: AUSTRALIA.

(INCLUDING GOLD.)

Period.(a)	Value.(£'000.)			Excess of Exports(+) or Imports(-) (£'000.)	Value per Head of Population.(£)		
	Imports.	Exports.	Total.		Imports.	Exports.	Total.
1901 to 1905 ..	35,689	51,237	86,926	+ 15,548	9.1	13.1	22.2
1906 to 1910 ..	46,825	(b) 69,336	116,161	+ 22,511	11.0	16.3	27.3
1911 to 1915-16 ..	66,737	74,504	141,241	+ 7,767	13.8	15.4	29.2
1916-17 to 1920-21	91,577	115,066	206,643	+ 23,489	17.4	21.9	39.3
1921-22 to 1925-26	124,404	134,545	258,949	+ 10,141	21.1	22.9	44.0
1926-27 to 1930-31	119,337	131,382	250,719	+ 12,045	18.6	20.5	39.1
1931-32 to 1935-36	73,798	120,958	194,756	+ 47,160	11.1	18.1	29.2
1936-37 to 1940-41	123,553	157,610	281,163	+ 34,057	17.8	22.7	40.5
1941-42 to 1945-46	211,514	163,955	375,469	- 47,559	29.1	22.4	51.5
1946-47 to 1950-51	449,273	571,430	1,020,703	+ 122,157	57.2	72.7	129.9
1951-52.. ..	1,053,423	675,008	1,728,431	- 378,415	123.5	79.1	202.6
1952-53.. ..	514,109	871,272	1,385,381	+ 357,163	58.9	99.7	158.6
1953-54.. ..	681,609	828,332	1,509,941	+ 146,723	76.6	93.0	169.6
1954-55.. ..	843,742	774,164	1,617,906	- 69,578	92.8	85.2	178.0
1955-56.. ..	821,088	781,864	1,602,952	- 39,224	88.1	83.9	172.0
1956-57.. ..	718,991	992,906	1,711,897	+ 273,915	75.4	104.1	179.5
1957-58.. ..	791,940	817,946	1,609,886	+ 26,006	81.3	83.9	165.2
1958-59.. ..	796,599	811,463	1,608,062	+ 14,864	80.0	81.5	161.5

(a) The figures shown for the years 1901 to 1950-51 represent the annual averages for the periods covered. See text above. From 1914-15 onwards the particulars relate to financial years. (b) Prior to 1906, ships' stores were included in exports. For the value of such goods shipped on overseas vessels and aircraft during each of the years 1954-55 to 1958-59 see Table on p. 497.

In issues of the Official Year Book prior to No. 23, fluctuations in the value of the overseas trade of Australia for earlier years were treated in some detail. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports in the years following the 1914-18 War, and these factors should be taken into consideration in making comparisons with earlier years. In the three years ended 1928-29, imports fell while exports were well maintained, but in 1929-30 both imports and exports declined substantially. The full effects of the economic depression are reflected in the greatly diminished trade figures for the period 1931-32 to 1935-36 and some years thereafter. The lowest level was recorded in 1931-32, when the total trade amounted to £137,538,000.

The outbreak of war in the Pacific in 1941 resulted in a substantial increase in the value of imports during the years 1941-42 to 1945-46. Since the end of the war the annual values of imports and exports have increased considerably, largely because of higher prices.

A graph showing the overseas trade of Australia from 1933-34 to 1958-59 appears on page 487.

2. **Excluding Gold.**—The fluctuations in recent years in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which *all* gold movements have been excluded.

OVERSEA TRADE: AUSTRALIA.

(EXCLUDING GOLD.)

Year.	Value. (£'000.)			Value per Head of Population.(£)		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
1954-55.. ..	841,018	760,446	1,601,464	92.5	83.7	176.2
1955-56.. ..	818,343	773,540	1,591,883	87.9	83.0	170.9
1956-57.. ..	716,720	978,679	1,695,399	75.2	102.6	177.8
1957-58.. ..	789,308	811,594	1,600,902	81.0	83.3	164.3
1958-59.. ..	794,422	808,184	1,602,606	79.8	81.2	161.0

§ 8. Direction of Oversea Trade.

1. According to Countries.—(i) *Values.* The following table shows the value of Australian imports and exports during each of the years 1956-57 to 1958-59, according to country of origin or consignment respectively.

COUNTRIES OF ORIGIN OR CONSIGNMENT OF AUSTRALIAN IMPORTS AND EXPORTS: VALUES.

(EXCLUDING GOLD.)

(£'000.)

Country.	Imports.			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
<i>Commonwealth Countries—</i>						
United Kingdom	296,251	325,007	307,436	277,475	221,406	256,935
Australian Territories ..	8,031	8,717	10,420	16,589	16,661	16,698
Canada	22,157	23,046	23,173	10,681	14,133	16,460
Ceylon	9,863	8,772	10,457	10,582	5,939	5,899
India	24,509	23,416	21,005	28,580	11,689	10,080
Malaya, Federation of ..	10,875	10,708	11,482	9,088	11,420	13,167
New Zealand	11,593	12,372	12,219	50,945	55,402	49,603
Singapore	873	912	1,322	14,129	12,548	9,855
Other Commonwealth Countries	36,625	37,550	39,810	40,468	41,406	43,236
<i>Total, Commonwealth Countries</i>	<i>420,777</i>	<i>450,500</i>	<i>437,324</i>	<i>458,537</i>	<i>390,604</i>	<i>421,933</i>
<i>Foreign Countries—</i>						
Arabian States	23,449	29,289	29,467	3,174	2,614	2,852
Belgium-Luxemburg	7,462	6,543	6,731	35,039	28,111	23,571
France	9,297	10,333	11,724	91,974	69,841	46,661
Germany, Federal Republic of	31,079	41,516	42,954	46,948	33,128	28,905
Indonesia	26,356	28,089	31,475	6,820	4,051	2,137
Italy	9,112	10,768	9,720	52,953	46,344	32,244
Japan	12,884	23,815	29,949	138,877	102,717	102,311
Netherlands	10,555	11,073	12,978	5,547	5,622	8,468
Sweden	11,510	11,700	12,229	2,440	4,014	2,677
United States of America ..	95,544	104,453	108,503	66,097	45,366	60,725
Other Foreign Countries ..	57,333	60,659	60,806	65,952	73,554	70,216
<i>Total, Foreign Countries</i>	<i>294,581</i>	<i>338,238</i>	<i>356,536</i>	<i>515,821</i>	<i>415,362</i>	<i>380,767</i>
<i>Country unknown</i>	<i>1,362</i>	<i>570</i>	<i>562</i>	<i>4,321</i>	<i>5,628</i>	<i>5,484</i>
<i>Total</i>	<i>716,720</i>	<i>789,308</i>	<i>794,422</i>	<i>978,679</i>	<i>811,594</i>	<i>808,184</i>

(ii) *Proportions.* In view of the fluctuations in the total values of imports and exports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the trade of Australia. A better idea of the proportions of imports supplied by the various countries and of their relative importance as markets for Australian exports during the years 1956-57 to 1958-59 may be obtained from the following table.

COUNTRIES OF ORIGIN OR CONSIGNMENT OF AUSTRALIAN IMPORTS AND EXPORTS: PROPORTIONS.

(EXCLUDING GOLD.)

(Per Cent. of Total.)

Country.	Imports.			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
<i>Commonwealth Countries—</i>						
United Kingdom	41.33	41.18	38.70	28.35	27.28	31.79
Australian Territories ..	1.04	1.00	1.31	1.64	2.05	2.07
Canada	3.09	2.92	2.92	1.09	1.74	2.04
Ceylon	1.38	1.11	1.32	1.08	0.73	0.73
India	3.41	2.97	2.64	2.92	1.44	1.25
Malaya, Federation of ..	1.52	1.36	1.45	0.93	1.41	1.63
New Zealand	1.62	1.57	1.54	5.21	6.83	6.14
Singapore	0.12	0.11	0.17	1.44	1.55	1.22
Other Commonwealth Countries	5.20	4.86	5.00	4.19	5.10	5.34
<i>Total, Commonwealth Countries</i>	<i>58.71</i>	<i>57.08</i>	<i>55.05</i>	<i>46.85</i>	<i>48.13</i>	<i>52.21</i>
<i>Foreign Countries—</i>						
Arabian States	3.27	3.71	3.71	0.32	0.32	0.35
Belgium-Luxemburg	1.04	0.84	0.85	3.58	3.46	2.92
France	1.30	1.30	1.48	9.40	8.61	5.77
Germany, Federal Republic of	4.34	5.26	5.41	4.80	4.08	3.58
Indonesia	3.68	3.56	3.96	0.70	0.50	0.26
Italy	1.27	1.36	1.22	5.41	5.71	3.99
Japan	1.80	3.02	3.77	14.19	12.66	12.66
Netherlands	1.47	1.40	1.63	0.57	0.69	1.05
Sweden	1.60	1.48	1.54	0.25	0.49	0.33
United States of America ..	13.33	13.23	13.66	6.75	5.59	7.51
Other Foreign Countries ..	8.00	7.69	7.65	6.74	9.07	8.69
<i>Total, Foreign Countries</i>	<i>41.10</i>	<i>42.85</i>	<i>44.88</i>	<i>52.71</i>	<i>51.18</i>	<i>47.11</i>
<i>Country unknown</i>	<i>0.19</i>	<i>0.07</i>	<i>0.07</i>	<i>0.44</i>	<i>0.69</i>	<i>0.68</i>
Total	100.00	100.00	100.00	100.00	100.00	100.00

2. According to Monetary Groups.—The following table shows the trade of Australia according to monetary groups during the years 1957-58 and 1958-59.

The sterling group includes the United Kingdom, its colonies and dependencies, all other countries of the British Commonwealth (except Canada and the New Hebrides Condominium) and certain non-British countries of which the most important are Burma, Bahrain Islands, other Arabian States (excluding Saudi Arabia and Yemen) and Iceland.

The dollar group is comprised of the United States of America and dependencies, Canada, Mexico, other Central American countries, Bolivia, Colombia, Ecuador, Venezuela, the Philippines and Liberia.

The E.E.C. group consists of non-sterling members of the European Economic Community, namely Belgium, France, Italy and the Netherlands together with their associated states and dependencies and the Federated Republic of Germany. Prior to 1958-59 this group was included in the O.E.E.C. group.

The O.E.E.C. group in the following table comprises the following non-sterling members of the Organization for European Economic Co-operation, namely Norway, Portugal and their dependencies, Austria, Denmark, Greece, Spain, Sweden, Switzerland and Turkey.

Of the remaining countries grouped under "other non-sterling", the more important as regards trade with Australia are Czechoslovakia, Finland, Poland, Spain, the Union of Soviet Socialist Republics, Egypt, Iran, Saudi Arabia, Japan, Indonesia, Thailand, Brazil and Chile.

OVERSEA TRADE OF AUSTRALIA ACCORDING TO MONETARY GROUPS.

(INCLUDING GOLD.)

(£'000.)

Monetary Group.	1957-58.	1958-59.
STERLING.		
Imports—		
From—United Kingdom	325,007	307,437
Other Countries	127,344	134,025
Total	452,351	441,462
Exports—		
To—United Kingdom	221,421	256,935
Other Countries	164,784	155,267
Total	386,205	412,202
Excess of Exports (+) or Imports (—)	—66,146	—29,260
DOLLAR.		
Imports—		
From—United States of America	104,453	108,503
Canada	23,046	23,173
Other Countries	3,567	4,647
Total	131,066	136,323
Exports—		
To—United States of America	45,404	60,731
Canada	14,133	16,460
Other Countries	10,782	10,475
Total	70,319	87,666
Excess of Exports (+) or Imports (—)	—60,747	—48,657
OTHER NON-STERLING.		
Imports—		
From—Countries of the E.E.C., including dependencies ..	115,248	85,613
Countries of the O.E.E.C., including dependencies(a) ..		
Other Countries		
Total	208,523	218,814
Exports—		
To—Countries of the E.E.C., including dependencies ..	201,417	145,082
Countries of the O.E.E.C., including dependencies(a) ..		
Other Countries		
Total	361,422	311,595
Excess of Exports (+) or Imports (—)	+152,899	+92,781
ALL MONETARY GROUPS.		
Total Imports	791,940	796,599
Total Exports	817,946	811,463
Excess of Exports (+) or Imports (—)	+26,006	+14,864

(a) Excludes those member countries in E.E.C. group above.

A graph showing the overseas trade of Australia according to monetary groups for the years 1953-54 to 1958-59 will be found on page 488.

§ 9. Trade with the United Kingdom.

1. **Statistical Classes.**—The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin and of exports from Australia to the United Kingdom during each of the years 1956-57 to 1958-59.

TRADE WITH THE UNITED KINGDOM: CLASSES.

(£'000.)

Class.	Imports.			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
I. Foodstuffs of animal origin, etc.	1,030	1,443	1,276	64,764	55,718	88,027
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	352	649	794	57,881	55,023	63,578
III. Alcoholic liquors, etc.	1,467	1,796	1,932	688	616	746
IV. Tobacco, etc.	417	453	395	76	104	1
V. Live animals and birds	138	204	175	8	18	18
VI. Animal substances, etc.	367	388	565	120,397	82,105	75,303
VII. Vegetable substances, etc.	1,103	1,660	1,663	1,125	116	110
VIII. Apparel, textiles, etc.	41,560	46,973	36,947	199	217	259
IX. Oils, fats and waxes	1,327	1,054	1,745	1,726	2,077	1,774
X. Pigments, paints and varnishes	3,438	4,326	3,876	4	3	15
XI. Rocks, minerals, etc.	463	538	687	3,859	3,932	3,192
XII. Metals, metal manufactures and machinery	170,153	176,870	168,120	19,878	14,364	16,182
XIII. Rubber and leather, etc.	2,773	2,945	2,715	1,961	2,309	2,520
XIV. Wood and wicker, etc.	299	354	367	531	687	440
XV. Earthenware, etc.	6,733	7,289	7,599	14	6	20
XVI. Paper and stationery	20,217	21,573	21,680	318	543	307
XVII. Jewellery, etc.	1,892	2,560	2,736	70	74	90
XVIII. Optical, surgical and scientific instruments	5,057	5,517	5,618	173	331	360
XIX. Chemicals, medicinal products, essential oils, fertilizers	14,414	18,515	18,954	309	333	484
XX. Miscellaneous	(a)23,051	(a)29,899	(a)29,591	1,656	1,624	2,200
XXI. Gold and silver; brnze specie	..	1	2	1,839	1,221	1,309
Total	296,251	325,007	307,437	277,476	221,421	256,935

(a) Includes outside packages.

2. Imports of Principal Articles.—The following table shows the value of the principal articles imported into Australia from the United Kingdom during each of the years 1956-57 to 1958-59.

IMPORTS OF PRINCIPAL ARTICLES OF UNITED KINGDOM ORIGIN:
AUSTRALIA.

(£'000.)

Article.	1956-57.	1957-58.	1958-59.	Article.	1956-57.	1957-58.	1958-59.
Arms and ammunition, military, naval and air force stores	3,418	4,412	4,643	Optical, surgical and scientific instruments ..	3,728	3,803	3,953
Apparel	3,102	4,526	3,981	Paper, printing	7,381	6,801	6,597
Carpets	3,445	4,005	3,885	Piece-goods—			
Chemicals, medicinal products, essential oils and fertilizers	14,398	18,466	18,954	Cotton and linen	12,279	13,202	9,325
Cigarettes	348	295	284	Silk and rayon(a)	2,657	2,564	1,998
Crockery	2,334	2,434	2,650	All other piece-goods ..	4,226	4,529	4,230
Cutlery	1,643	1,595	1,240	Prefabricated houses and buildings	325	113	23
Electrical cable and wire, covered	721	786	716	Rubber and rubber manufactures	2,267	2,412	2,047
Electrical machinery and appliances	24,223	23,683	21,161	Sewing silks, cottons, etc. ..	2,427	2,218	2,263
Glass and glassware	2,929	3,130	3,193	Stationery and paper manufactures	8,790	9,952	10,264
Iron and steel—				Tools of trade	2,254	2,276	2,073
Plate and sheet	13,886	10,415	8,912	Vehicles, parts and accessories	39,823	44,342	44,860
Other	6,625	5,374	4,910	Yarns—			
Linoleums	2,259	2,319	2,196	Cotton	2,763	3,676	2,867
Machines and machinery (except dynamo electrical)—				Rayon	5,989	6,900	3,634
Agricultural	2,097	1,444	1,780	Other	479	481	339
Metal-working	6,585	5,718	5,851	All other articles(b) ..	61,069	74,561	75,392
Motive-power	24,772	24,043	19,981				
Other	27,009	34,532	33,235	Total Imports	296,251	325,007	307,437

(a) Includes tyre cord fabric.

(b) Includes outside packages.

3. **Exports of Principal Articles of Australian Produce.**—The following table shows the quantities and values of the principal articles of Australian produce exported to the United Kingdom during each of the years 1956–57 to 1958–59.

PRINCIPAL ARTICLES EXPORTED TO THE UNITED KINGDOM: AUSTRALIA.
(Australian Produce.)

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Barley	ton	59,950	54,517	84,173	1,269	1,090	2,123
Butter	"	62,553	41,509	69,119	20,085	12,271	22,105
Cheese	"	13,934	5,793	11,574	2,382	750	3,519
Eggs in shell	'000 doz.	6,852	5,195	1,805	1,238	745	271
Flour	ton(a)	80,735	43,156	45,548	2,230	1,280	1,316
Fruit, dried	ton	24,322	36,309	39,760	3,791	5,795	7,002
" fresh	'000 bus.	3,307	4,904	4,364	4,871	7,975	5,973
" preserved in airtight containers	ton	52,380	67,965	77,594	8,829	11,334	11,543
Gold	'000 fine oz.	..	1	..	1	15	..
Hides and skins .. .. .	"	..	..	..	2,725	2,311	1,957
Lead bullion	ton	53,531	48,546	59,691	8,264	5,582	6,218
" pig	"	54,541	58,274	70,112	7,481	5,634	5,852
Leather .. .. .	"	..	..	..	1,921	2,269	2,497
Meats preserved by cold process—							
Beef and veal	ton	115,391	96,600	152,918	17,007	15,084	30,915
Lamb	"	19,634	24,664	33,941	3,754	5,144	6,686
Mutton	"	6,830	11,024	13,099	867	1,166	1,776
Pork	"	167	274	239	64	74	59
Meats, tinned	"	38,990	45,785	41,107	10,104	11,421	10,769
Milk and cream	'000 lb.	19,890	9,769	50,256	932	460	1,894
Silver bullion	'000 fine oz.	4,444	3,037	3,300	1,830	1,201	1,300
Sugar (cane)	ton	367,488	358,487	346,268	16,616	17,850	15,364
Tallow, inedible	"	9,153	4,485	6,793	707	353	524
Timber, undressed(b)	'000 super ft.	2,790	3,087	1,465	183	188	101
Wheat	ton	715,165	262,284	568,551	16,767	6,980	14,708
Wine, fermented	'000 gal.	1,308	1,106	1,333	675	602	723
Wool	'000 lb.	331,876	271,653	331,125	117,372	79,583	73,082
Zinc bars, etc.	ton	10,103	3,801	7,651	1,190	307	684
All other articles .. .. .	"	..	..	..	21,806	21,909	24,467
Total Exports (Australian Produce) ..	..	..	..	..	274,961	219,373	253,428

(a) 2,000 lb.

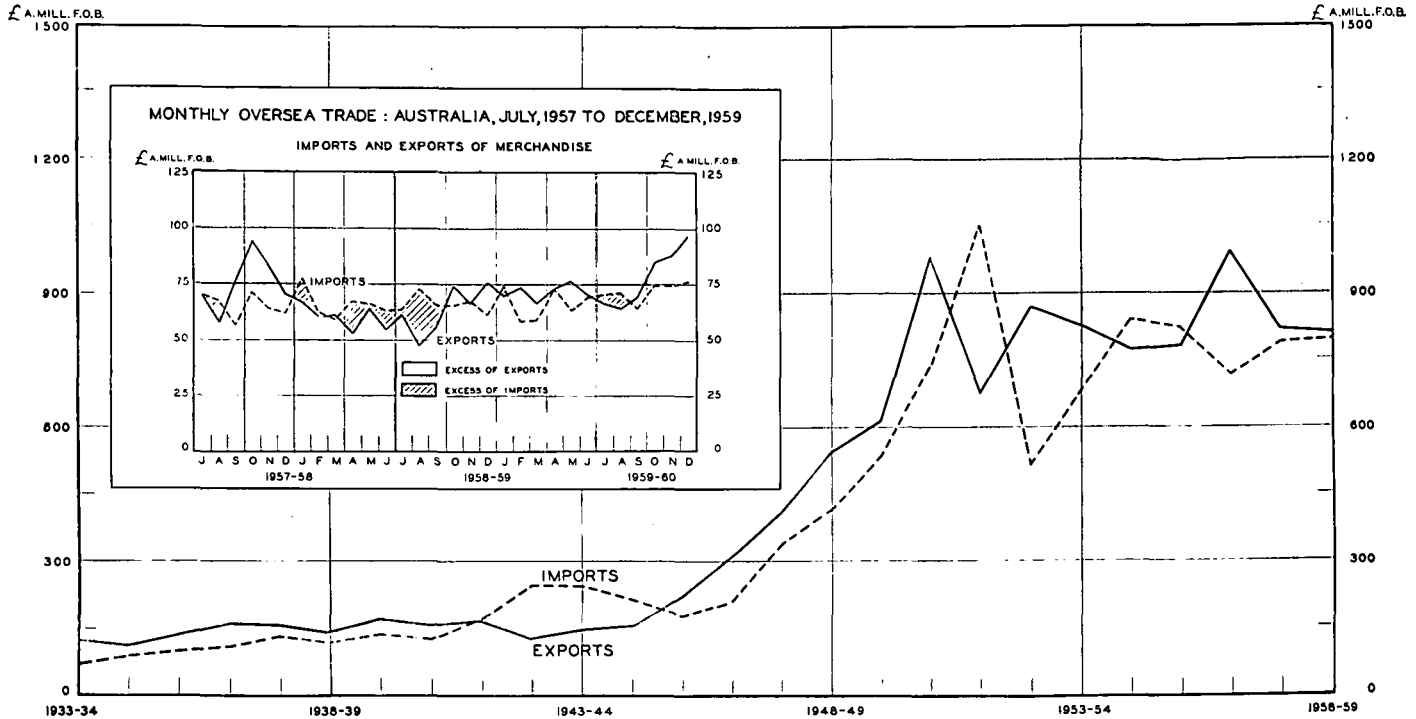
(b) Excludes railway sleepers.

4. **Imports from the United Kingdom and Competing Countries.**—Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. Imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom cannot supply. These items, in addition to others not available from that country, have therefore been omitted from the following table.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Federal Republic of Germany, Japan and the United States of America. These countries have been selected as the principal competitors in normal times with the United Kingdom for the trade of Australia under the specified headings. Totals for each of the years 1956–57 to 1958–59 are shown in the following table.

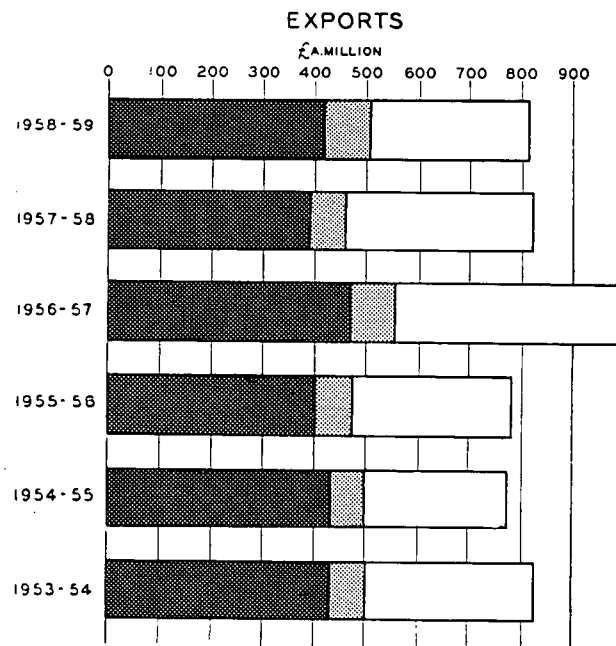
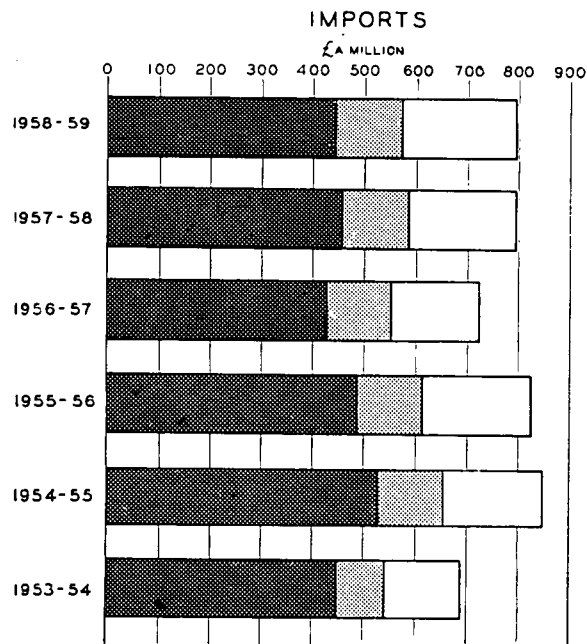
OVERSEA TRADE : AUSTRALIA, 1933-34 TO 1958-59



OVERSEA TRADE ACCORDING TO MONETARY AREAS

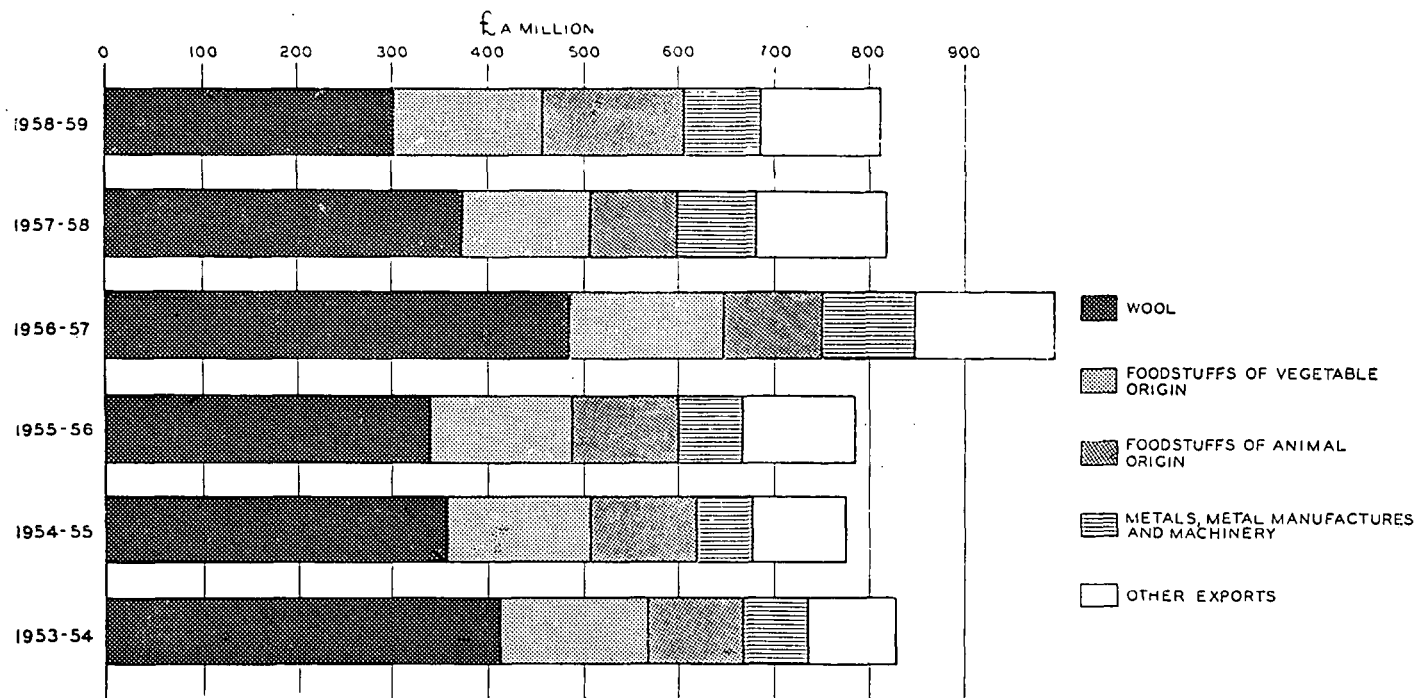
AUSTRALIA, 1953-54 TO 1958-59

■ STERLING AREA ▨ DOLLAR AREA □ OTHER NON-STERLING AREAS



EXPORTS OF PRINCIPAL COMMODITIES

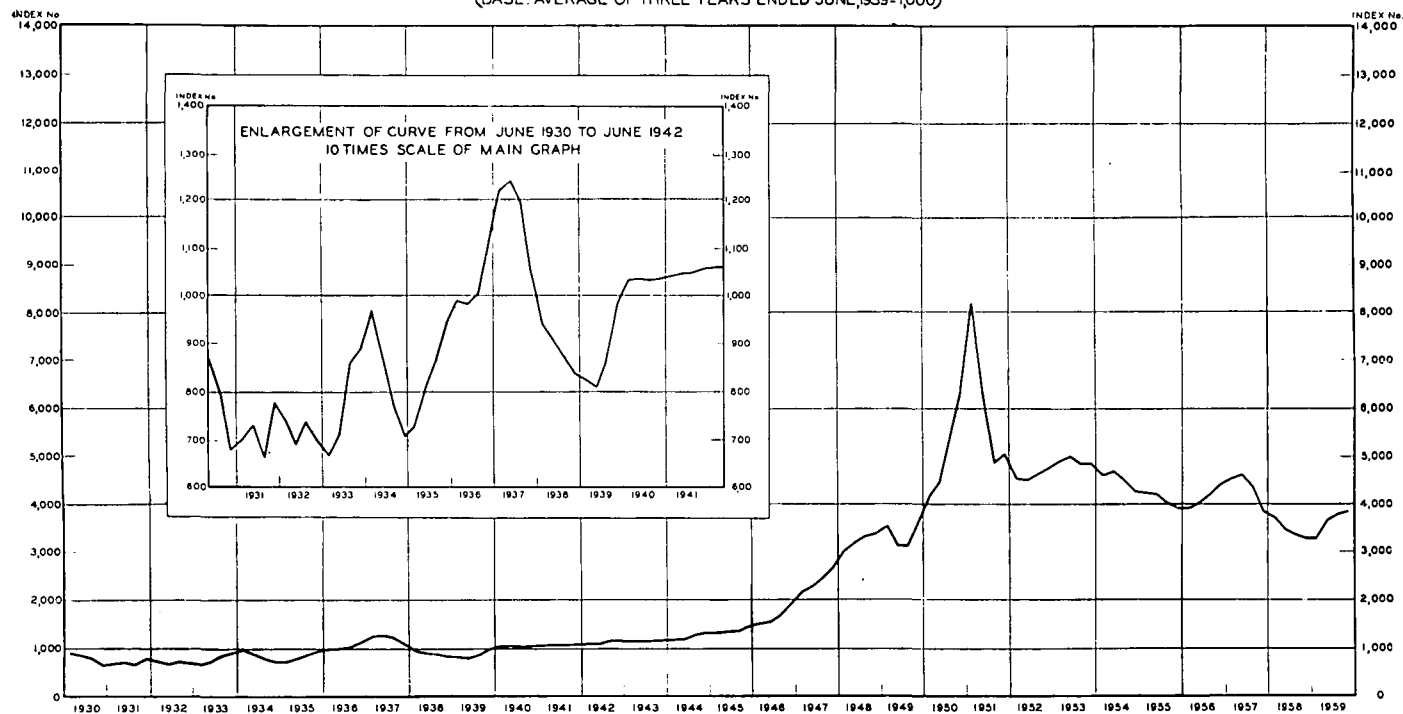
AUSTRALIA, 1953-54 TO 1958-59



EXPORT PRICE INDEX NUMBERS : AUSTRALIA, 1930 to 1959

SIMPLE AGGREGATE INDEX : FIXED WEIGHTS

(BASE: AVERAGE OF THREE YEARS ENDED JUNE, 1939=1,000)



IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN COMPETITORS.
(£'000.)

Nature of Imports.	Year.	United Kingdom.	France.	Federal Republic of Germany.	Japan.	United States of America.	All Countries.
Foodstuffs of animal origin	{ 1956-57	1,031	6	171	999	139	5,689
	{ 1957-58	1,442	5	180	1,368	934	8,395
	{ 1958-59	1,276	..	189	1,552	594	7,834
Yarns and manufactured fibres, textiles and apparel	{ 1956-57	41,560	2,636	3,574	7,227	505	91,354
	{ 1957-58	46,973	3,191	4,909	15,722	771	108,499
	{ 1958-59	36,947	2,294	3,980	18,423	799	96,973
Metals, metal manufactures and machinery	{ 1956-57	170,153	3,368	14,172	1,309	49,245	265,247
	{ 1957-58	176,870	3,524	20,832	1,284	51,208	282,404
	{ 1958-59	168,120	5,579	23,204	2,387	58,815	292,936
Rubber and leather and manufactures thereof, and substitutes therefor	{ 1956-57	2,773	198	114	21	3,280	17,384
	{ 1957-58	2,945	226	144	28	4,119	17,406
	{ 1958-59	2,714	305	134	..	3,892	17,677
Earthenware, cement, china, glass and stoneware	{ 1956-57	6,732	391	657	946	784	12,188
	{ 1957-58	7,289	372	642	1,331	811	13,347
	{ 1958-59	7,599	576	695	1,686	1,064	14,360
Pulp, paper and board; paper manufactures and stationery	{ 1956-57	20,217	46	784	164	1,962	41,793
	{ 1957-58	21,574	77	818	268	2,101	45,089
	{ 1958-59	21,680	143	925	449	2,815	48,219
Sporting material, toys, fancy goods, jewellery and time-pieces	{ 1956-57	1,892	98	1,385	580	39	6,783
	{ 1957-58	2,560	138	1,555	988	28	8,459
	{ 1958-59	2,736	126	1,293	1,477	17	8,726
Optical, surgical and scientific instruments, etc.; photographic goods, n.e.i.	{ 1956-57	5,057	79	1,338	241	2,128	9,943
	{ 1957-58	5,517	97	2,133	601	2,228	12,134
	{ 1958-59	5,618	97	1,898	728	2,563	12,305
Chemicals, medicinal and pharmaceutical products, essential oils and fertilizers	{ 1956-57	14,414	1,254	4,391	182	2,032	30,445
	{ 1957-58	18,515	1,244	4,506	728	3,516	37,549
	{ 1958-59	18,954	1,127	5,103	826	4,596	39,855
Total, competitive imports	{ 1956-57	263,829	8,076	26,586	11,669	60,114	480,826
	{ 1957-58	283,685	8,874	35,719	22,318	65,716	533,282
	{ 1958-59	263,644	10,247	37,421	27,528	75,155	538,885
Total imports (less bullion and specie) (a)	{ 1956-57	296,251	9,297	31,079	12,884	95,544	716,682
	{ 1957-58	325,006	10,332	41,516	23,815	104,453	789,261
	{ 1958-59	307,435	11,724	42,954	29,949	108,503	794,388

(a) Includes outside packages.

The principal classes of competitive imports are metals, metal manufactures and machinery (value £292,936,000 in 1958-59) and manufactured fibres, textiles and apparel (value £96,973,000 in 1958-59). The value of goods included in these two groups represented 72.4 per cent. of the total value of competitive commodities during 1958-59. In 1958-59, the United Kingdom supplied 49.3 per cent. of the total value of competitive goods.

§ 10. Trade with Eastern Countries.

1. **Merchandise Trade According to Countries.**—The values of imports from and exports to Eastern countries during the years 1956-57 to 1958-59 are shown in the following table. The principal commodities imported in 1958-59 according to countries of origin were:—Borneo (British)—crude petroleum, £8,519,000, timber, hardwood, £2,094,000; Ceylon—tea, £9,150,000; India—bags and sacks, £6,836,000, cotton and linen piece-goods, £4,147,000,

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hessian, £2,719,000, tea, £1,117,000 and petroleum, £1,141,000; Malaya—crude rubber £6,896,000, latex, £1,364,000, timber, £1,524,000 and tin, £1,055,000; Japan—metals and metal manufactures, £1,455,000, cotton and linen piece-goods, £13,756,000, other textiles, £3,175,000, tinned fish, £1,449,000; Indonesia—petroleum spirit, £5,231,000, kerosene, £2,439,000, crude petroleum, £15,568,000, residual and solar oil, £532,000 and tea, £4,223,000.

MERCHANDISE TRADE WITH EASTERN COUNTRIES: AUSTRALIA.
(£'000.)

Country.	Imports.(a)			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
<i>Commonwealth Countries—</i>						
Borneo	15,224	13,222	13,000	1,027	1,009	996
Ceylon	9,863	8,772	10,457	9,819	5,939	5,832
Hong Kong	2,806	3,345	3,959	9,412	6,344	8,675
India	24,509	23,416	21,005	28,580	11,689	10,080
Malaya, Federation of ..	10,875	10,708	11,482	9,088	11,420	13,167
Pakistan	1,200	799	2,094	6,744	5,170	1,532
Singapore	873	912	1,322	14,129	12,548	9,855
<i>Foreign Countries—</i>						
Burma	14	16	51	2,467	1,525	1,448
Cambodia	1	1	5	40	38	29
China (Mainland)	2,115	3,114	3,574	6,438	9,768	13,567
Formosa	45	63	49	575	503	1,070
Indonesia	26,356	28,089	31,475	6,820	4,051	2,137
Japan	12,884	23,815	29,949	138,877	102,717	102,311
Korea, North .. ..	..	3	..	..	..	30
Korea, Republic of	6	1	3	1,125	1,557	2,963
Laos .. ..	..	..	..	204	15	5
Nepal .. ..	..	..	3	..	..	..
Philippines	186	176	153	3,812	4,873	4,157
Portuguese Dependencies—						
India (Portuguese) .. ..	..	..	..	139	139	170
Macao .. ..	..	35	1	1	3	1
Timor	24	17	18	33	220	49
Thailand	242	198	207	1,631	1,627	1,783
Viet-Nam, North	1	..	..	..	128	37
Viet-Nam, South .. ..	..	4	1	14	102	454
Total	107,224	116,706	128,808	240,975	181,385	180,348

(a) Includes outside packages.

The balance of trade with Eastern countries shows an excess of exports from Australia during each of the years 1956-57 to 1958-59.

2. **Exports of Principal Articles.**—The following table shows the value of exports (including re-exports) from Australia to Eastern countries for each of the years 1956-57 to 1958-59. The countries concerned in this trade are listed in the previous table.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.
(£'000.)

Article.	1956-57.	1957-58.	1958-59.	Article.	1956-57.	1957-58.	1958-59.
Animal (except marine) oils and fats	2,424	2,470	2,558	Meats	5,380	4,309	2,998
Army stores	1,037	1,021	2,265	Metals and metal manufactures except zinc bars, etc. ..	22,596	14,391	15,468
Butter	2,299	1,688	1,634	Milk and cream	6,910	6,024	5,992
Cheese	860	397	397	Sugar (raw)	3,913	7,209	6,264
Fruit, fresh or preserved ..	1,481	1,293	1,399	Wool	115,657	88,749	83,025
Grain and cereals—				Zinc bars, blocks, etc. ..	2,354	2,153	2,710
Flour (wheat), plain white ..	14,498	7,147	8,347	Other merchandise ..	21,714	21,934	24,344
Wheat	23,978	10,577	9,482	Total Merchandise ..	240,975	181,385	180,348
Other (prepared and unprepared)	9,489	5,782	8,336	Gold and silver; bronze specie	14,783	6,231	3,291
Infants' and invalids' foods ..	2,155	2,115	1,918	Total Exports ..	255,758	187,616	183,639
Leather	814	798	841				
Machines and machinery ..	3,416	3,328	2,370				

§ 11. Oversea Trade at Principal Ports.

The following table shows the value of overseas imports and exports at the principal ports of Australia during the year 1958-59, and the totals for each State and Territory.

OVERSEA TRADE AT PRINCIPAL PORTS, 1958-59.
(£'000.)

Port.	Imports.	Exports.	Port.	Imports.	Exports.
NEW SOUTH WALES.			SOUTH AUSTRALIA.		
Sydney, including Botany Bay	339,616	181,729	Port Adelaide, including Adelaide	44,185	58,953
Newcastle, including Port Stephens	7,350	28,617	Port Pirie	350	17,713
Port Kembla	5,746	10,921	Port Lincoln	540	4,395
Other .. ..	..	105	Wallaroo	269	6,231
Total	352,712	221,372	Other	2	3,624
VICTORIA.			Total	45,346	90,916
Melbourne	261,578	200,181	WESTERN AUSTRALIA.		
Geelong	28,805	16,852	Fremantle, including Perth and Kwinana	43,801	67,553
Portland	914	2,518	Geraldton	279	6,022
Total	291,297	219,551	Bunbury	325	5,122
QUEENSLAND.			Albany	496	6,097
Brisbane	43,541	100,282	Other	85	2,498
Townsville	1,857	26,858	Total	44,986	87,292
Mackay	267	13,201	TASMANIA.		
Cairns	1,360	10,861	Hobart	8,047	13,640
Bowen	1	4,278	Launceston	2,603	4,863
Rockhampton	309	6,700	Burnie	2,089	2,767
Gladstone	375	5,245	Devonport	655	704
Maryborough	20	2,501	Total	13,394	21,974
Other	7	72	NORTHERN TERRITORY.		
Total	47,737	169,998	Darwin	1,059	360
			AUSTRALIAN CAPITAL TERRITORY.		
			Canberra	68	..
			Grand Total	796,599	811,463

§ 12. Classified Summary of Australian Oversea Trade.

1. Statistical Classes.—(i) *Imports and Exports*. The following table shows, according to statistical classes, the value of Australian imports and exports during each of the years 1956-57 to 1958-59.

TOTAL OVERSEA TRADE, AUSTRALIA: CLASSES.
(£'000.)

Class.	Imports.			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
I. Foodstuffs of animal origin, etc.	5,689	8,395	7,834	101,944	92,007	146,568
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	25,815	26,560	27,841	163,160	133,102	155,693
III. Alcoholic liquors, etc.	1,684	2,125	2,292	1,954	1,891	2,083
IV. Tobacco, etc.	14,235	15,453	14,510	482	707	461
V. Live animals and birds	755	721	551	1,636	1,843	1,242
VI. Animal substances, etc.	3,841	4,212	3,866	510,346	400,605	327,152
VII. Vegetable substances, etc.	19,238	19,424	19,809	2,863	1,076	993
VIII. Apparel, textiles, etc.	91,354	108,499	96,973	2,731	2,718	2,449
IX. Oils, fats and waxes	95,546	101,722	104,479	17,331	22,846	22,586
X. Pigments, paints and varnishes	6,500	7,595	6,766	1,087	897	912
XI. Rocks, minerals, etc.	5,638	7,320	7,165	31,279	28,099	21,252
XII. Metals, metal manufactures and machinery	265,247	282,404	292,937	97,426	81,606	81,606
XIII. Rubber and leather, etc.	17,384	17,406	17,677	3,925	4,385	4,596
XIV. Wood and wicker, etc.	17,137	16,737	15,482	3,737	4,535	4,350
XV. Earthenware, etc.	12,188	13,347	14,360	1,109	1,105	959
XVI. Paper and stationery	41,793	45,089	48,219	2,842	2,985	2,678
XVII. Jewellery, etc.	6,783	8,459	8,726	674	747	905
XVIII. Optical, surgical and scientific instruments	9,943	12,134	12,305	1,112	1,630	1,772
XIX. Chemicals, medicinal products, essential oils, fertilizers	30,445	37,549	39,855	5,590	6,517	7,468
XX. Miscellaneous	(a)45,467	(a)54,110	(a)52,741	21,770	21,001	20,980
XXI. Gold and silver; bronze specie	2,309	2,679	2,211	19,908	7,644	4,758
Total	718,991	791,940	796,599	992,906	817,946	811,463

(a) Includes outside packages.

(ii) *Exports—Australian Produce and Re-exports.* In the following table the exports from Australia of (a) Australian produce and (b) re-exports are shown according to statistical classes for each of the years 1956–57 to 1958–59.

EXPORTS FROM AUSTRALIA: AUSTRALIAN PRODUCE AND RE-EXPORTS.
(£'000.)

Class.	Australian Produce.			Re-exports.		
	1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
I. Foodstuffs of animal origin, etc.	101,895	91,976	146,526	49	31	42
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	162,821	132,677	155,211	339	425	482
III. Alcoholic liquors, etc.	1,943	1,884	2,071	11	7	12
IV. Tobacco, etc.	369	509	355	113	198	106
V. Live animals	1,521	1,694	1,180	115	149	62
VI. Animal substances, etc.	510,203	400,534	327,001	143	71	151
VII. Vegetable substances, etc.	2,831	1,055	975	32	21	18
VIII. Apparel, textiles, etc.	2,522	2,480	2,234	209	238	215
IX. Oils, fats and waxes	16,726	22,157	21,070	605	689	1,516
X. Pigments, paints and varnishes	1,020	868	876	67	29	36
XI. Rocks, minerals, etc.	31,097	28,022	21,032	182	77	220
XII. Metals, metal manufactures and machinery	93,049	76,774	76,266	4,377	4,832	5,340
XIII. Rubber and leather, etc.	3,855	4,345	4,557	70	40	39
XIV. Wood and wicker, etc.	3,638	4,453	4,268	99	82	82
XV. Earthenware, etc.	1,078	1,083	918	31	22	41
XVI. Paper and stationery	2,674	2,828	2,511	168	157	167
XVII. Jewellery, etc.	587	651	777	87	96	128
XVIII. Optical, surgical and scientific instruments	873	1,450	1,450	239	180	322
XIX. Chemicals, medicinal products, essential oils, fertilizers	5,371	6,251	7,126	219	266	342
XX. Miscellaneous	15,275	13,835	13,683	6,495	7,166	7,297
XXI. Gold and silver; bronze specie	19,896	7,627	4,744	12	17	14
Total	979,244	803,153	794,831	13,662	14,793	16,632

2. *Imports of Principal Articles.*—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during each of the years 1956–57 to 1958–59.

PRINCIPAL ARTICLES IMPORTED: AUSTRALIA.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Apparel—							
Blouses, skirts, costumes, etc.	doz. prs.	332,871	484,196	431,704	377	733	906
Gloves	892	1,327	1,092
Headwear	741	846	716
Men's and boys' outer clothing	270	467	411
Socks and stockings	231	377	338
Trimmings and ornaments	3,511	4,371	3,731
Other apparel and attire	1,610	2,187	1,985
Arms, explosives, military stores, etc.	4,606	5,446	5,645
Bags and sacks	10,088	8,191	8,204
Carpets and carpeting	4,484	5,076	4,732
Chemicals, drugs, fertilizers	30,445	37,549	39,855
Crockery, etc.	3,276	3,546	3,873
Electrical machinery and appliances	34,785	36,410	35,797
Fibres	12,333	12,582	13,078
Glass and glassware	5,772	6,198	6,470
Iron and steel—							
Pipes, tubes and fittings	cwt.	276,090	362,722	310,473	1,480	2,108	1,777
Plate and sheet	..	3,231,512	2,109,090	1,825,442	18,080	12,366	11,204
Other	10,984	8,004	8,677
Machines and machinery (except dynamo electrical)—							
Agricultural	3,375	2,766	3,326
Metal-working	11,230	11,119	11,735
Motive power	38,494	39,715	34,757
Other	46,683	59,742	64,913

PRINCIPAL ARTICLES IMPORTED: AUSTRALIA—continued.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Motor vehicles, chassis, bodies and parts .. .. .	..	..	..	..	52,648	59,227	66,579
Oils—							
Linseed	'000 gal.	2,292	2,797	2,537	1,586	1,617	1,482
Petroleum and shale—							
Crude (a)	mill. gal.	2,119	2,421	2,531	58,496	68,521	69,911
Kerosene	'000 gal.	123,961	104,508	97,676	6,795	5,625	5,352
Lubricating (mineral) .. .. .	..	42,292	39,447	46,698	6,166	5,643	6,244
Petroleum and shale spirit .. .. .	..	193,274	179,030	234,360	12,577	11,004	13,743
Residual and solar .. .. .	..	37,417	28,442	16,365	1,716	1,472	846
Paper, printing .. .. .	..	..	..	..	16,235	16,762	17,139
Piece-goods—							
Canvas and duck	'000 sq. yds.	7,962	7,021	7,153	1,108	951	915
Cotton and linen .. .. .	..	..	..	..	32,125	41,992	39,070
Silk and man-made fibre-yarn .. .. .	..	..	..	..	7,729	8,637	7,617
Woolen and containing wool .. .. .	..	..	..	..	1,036	1,482	1,305
All other piece-goods .. .. .	..	..	..	..	5,929	7,806	7,890
Plastics materials .. .. .	..	..	..	..	5,901	9,510	8,603
Prefabricated houses and buildings .. .. .	..	..	..	..	479	124	41
Rubber and rubber manufactures .. .. .	..	..	..	..	16,711	16,636	16,783
Stationery and paper manufactures .. .. .	..	..	..	..	11,213	12,922	13,929
Tea	'000 lb.	61,504	55,762	62,423	14,723	12,132	15,085
Timber, undressed, including logs(b)	'000 sup. ft.	311,210	304,814	307,311	13,434	12,748	11,964
Yarns—							
Cotton	'000 lb.	5,998	8,038	6,843	2,802	3,703	2,935
Man-made fibres .. .. .	..	16,191	18,394	12,521	8,770	10,260	5,539
Woolen .. .. .	..	123	147	124	171	203	135
Other .. .. .	..	1,961	1,322	1,867	497	563	483
All other articles .. .. .	..	..	..	..	196,397	221,254	219,787
Total Imports .. .. .	..	..	..	..	718,991	791,940	796,599

(a) Includes once-run distillate. super. feet.

(b) Excludes dunnage and undressed timber not measured in

3. Exports of Principal Articles of Australian Produce.—The following table shows the quantities and values of the principal articles of Australian produce exported during each of the years 1956-57 to 1958-59.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Arms, ammunition, military, naval and air force stores .. .. .	..	..	..	..	1,568	1,357	1,947
Barley	ton	591,548	430,017	667,945	12,745	9,474	16,898
Butter .. .. .	..	76,265	50,794	77,316	25,824	15,639	24,956
Cheese .. .. .	..	17,025	9,230	14,411	3,860	1,854	4,467
Chemicals, drugs, fertilizers .. .. .	..	..	..	..	5,371	6,251	7,125
Flour, Wheaten, plain white	ton(a)	749,712	459,677	447,198	21,669	14,349	13,331
Fruit—							
Dried	ton	46,301	60,299	77,309	6,586	9,142	12,743
Fresh, including frozen	'000 bus.	5,678	7,992	6,559	8,585	13,060	9,413
Preserved in airtight containers	ton	59,818	73,732	87,511	10,078	12,357	12,950
Gold .. .. .	..	..	..	..	14,227	6,353	3,279
Hides and skins .. .. .	..	..	..	..	24,229	25,353	23,525
Lead, pig	ton	167,380	164,061	143,828	22,915	15,820	12,561
Machines and machinery (except dynamo electrical) .. .. .	..	..	..	..	7,934	9,635	6,915
Meats preserved by cold process—							
Beef and veal	ton	149,400	125,895	227,822	23,271	21,571	55,485
Lamb .. .. .	..	23,778	28,729	40,711	4,773	6,132	8,151
Mutton .. .. .	..	10,273	18,870	33,326	1,322	2,253	5,851
Pork .. .. .	..	642	960	835	271	318	274
Meats, tinned .. .. .	..	50,103	58,854	56,719	13,174	15,100	15,434
Milk and cream	'000 lb.	132,880	103,371	130,406	9,645	8,076	9,131
Ores and concentrates	ton	637,380	670,230	630,679	26,337	21,737	16,948
Sugar (cane) .. .. .	..	675,282	707,804	802,971	28,780	34,996	32,163
Wheat .. .. .	..	2,440,355	1,060,055	1,463,337	60,058	28,493	38,381
Wool (b)	'000 lb.	1,407,529	1,197,446	1,314,229	483,704	373,397	302,212
All other articles .. .. .	..	..	..	..	162,318	150,436	160,691
Total Exports (Australian Produce) .. .. .	..	..	..	..	979,244	803,153	794,831

(a) 2,000 lb.

(b) Quantity in terms of greasy wool.

A graph showing exports in principal commodity groups in each of the years 1953–54 to 1958–59 will be found on page 489.

4. **Imports of Merchandise and Bullion and Specie.**—The table hereunder shows the value of imports into Australia during each of the years 1954–55 to 1958–59, grouped under the headings—Merchandise, and Bullion and Specie. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods.

IMPORTS OF MERCHANDISE AND BULLION AND SPECIE: AUSTRALIA.
(£'000.)

Year.	Merchandise.			Bullion and Specie.	Total Imports.
	Free Goods.	Dutiable Goods.	Total.		
1954–55.. ..	399,063	441,909	840,972	2,770	843,742
1955–56.. ..	421,208	397,085	818,293	2,795	821,088
1956–57.. ..	403,496	313,186	716,682	2,309	718,991
1957–58.. ..	426,206	363,055	789,261	2,679	791,940
1958–59.. ..	464,274	330,114	794,388	2,211	796,599

5. **Exports of Merchandise and Bullion and Specie.**—The next table shows the value of exports from Australia during each of the years 1954–55 to 1958–59, grouped under the headings—Merchandise, and Bullion and Specie. The exports of Australian produce and re-exports are shown separately.

EXPORTS OF MERCHANDISE AND BULLION AND SPECIE: AUSTRALIA.
(£'000.)

Year.	Merchandise.			Bullion and Specie.			Total Exports.
	Australian Produce.	Re-exports.	Total.	Australian Produce.	Re-exports.	Total.	
1954–55 ..	749,765	8,276	758,041	16,118	5	16,123	774,164
1955–56 ..	757,100	13,737	770,837	10,990	37	11,027	781,864
1956–57 ..	959,348	13,650	972,998	19,896	12	19,908	992,906
1957–58 ..	795,527	14,776	810,303	7,626	17	7,643	817,946
1958–59 ..	790,087	16,618	806,705	4,744	14	4,758	811,463

6. **Imports and Net Customs Revenue.**—The percentage of net Customs revenue, excluding net primage, collected to the total value of all merchandise imported in each of the years 1954–55 to 1958–59 was as follows:—1954–55, 11.0 per cent.; 1955–56, 9.7 per cent.; 1956–57, 8.9 per cent.; 1957–58, 8.8 per cent., and 1958–59, 8.8 per cent. Primage duty was in force during these years and if this is added to net Customs revenue the percentages become:—1954–55, 12.0 per cent.; 1955–56, 10.7 per cent.; 1956–57, 9.6 per cent.; 1957–58, 9.1 per cent., and 1958–59, 9.0 per cent. The percentages of net Customs revenue, excluding primage, to the total value of dutiable goods only were: 1954–55, 20.9 per cent.; 1955–56, 20.1 per cent.; 1956–57, 20.4 per cent.; 1957–58, 19.1 per cent. and 1958–59, 21.0 per cent. The calculations are based on Australian currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

§ 13. Ships' and Aircraft Stores.

Prior to 1906, goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' and subsequently aircraft stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores during each of the years 1954-55 to 1958-59, with oils separate, is shown in the following table:—

VALUE OF STORES LOADED ON OVERSEA SHIPS AND AIRCRAFT: AUSTRALIA.
(£'000.)

Item.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Oils	7,328	7,970	9,059	8,383	6,704
All Stores (including oils) ..	13,181	13,539	14,208	12,798	10,876

In addition to oils, the principal items supplied to oversea ships and aircraft in 1958-59 were:—Meats, £1,344,163; fruit and vegetables, £373,036; eggs, £166,772; butter, £92,542; ale, porter, beer, etc., £249,086; sea food, £137,793; coal, £37,808; flour, £49,376; rice, £22,521; milk and cream, £37,013.

§ 14. Movement of Bullion and Specie.

1. Imports and Exports.—The following table shows the values of gold and silver bullion and specie and of bronze specie imported into and exported from Australia during each of the years 1956-57 to 1958-59.

IMPORTS AND EXPORTS, BULLION AND SPECIE: AUSTRALIA.
(£.)

Item.	Imports.			Exports.		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Gold—Bullion ..	2,270,632	2,631,443	2,175,729	14,225,889	6,352,070	3,276,087
Specie ..	66	707	942	1,282	..	3,000
<i>Total</i> ..	<i>2,270,698</i>	<i>2,632,150</i>	<i>2,176,671</i>	<i>14,227,171</i>	<i>6,352,070</i>	<i>3,279,087</i>
Silver—Bullion ..	29,334	34,319	24,493	5,594,400	1,219,187	1,400,219
Specie ..	8,578	11,784	9,320	86,009	71,552	77,996
<i>Total</i> ..	<i>37,912</i>	<i>46,103</i>	<i>33,813</i>	<i>5,680,409</i>	<i>1,290,739</i>	<i>1,478,215</i>
Bronze—Specie ..	623	425	337	670	734	396
Total— Australian Pro- duce ..	..	..	..	19,896,015	7,626,405	4,743,943
Re-exports ..	..	..	..	12,235	17,138	13,755
Grand Total ..	2,309,233	2,678,678	2,210,821	19,908,250	7,643,543	4,757,698

2. Imports and Exports by Countries.—The next table shows the imports and exports of bullion and specie from and to various countries during the year 1958–59:—

**IMPORTS AND EXPORTS OF BULLION AND SPECIE BY COUNTRIES:
AUSTRALIA, 1958–59.**

(£.)

Country.	Imports.			Exports.		
	Bullion.	Specie.	Total.	Bullion.	Specie.	Total.
<i>Commonwealth Countries—</i>						
Australia (re-imported) ..	..	7,562	7,562	..	..	..
United Kingdom ..	..	1,577	1,577	1,300,390	8,229	1,308,619
<i>Australian Territories—</i>						
Christmas Is. ..	..	..	..	..	61	61
Nauru ..	..	..	..	..	1,686	1,686
New Guinea ..	656,383	..	656,383	355	40,793	41,148
Norfolk Is. ..	..	..	..	..	112	112
Papua ..	..	..	..	..	16,849	16,849
Ceylon ..	..	..	..	66,701	..	66,701
Hong Kong ..	..	..	..	3,224,040	..	3,224,040
New Zealand ..	262,869	1,400	264,269	74,748	3,429	78,177
<i>Pacific Islands (British)—</i>						
Fiji ..	1,280,595	..	1,280,595	3,693	..	3,693
Gilbert and Ellice Is. ..	..	..	..	..	3,000	3,000
New Hebrides ..	..	..	..	..	3,660	3,660
Solomon Is. ..	375	..	375	..	613	613
South Africa, Union of ..	..	..	..	..	456	456
<i>Total Commonwealth Countries ..</i>	<i>2,200,222</i>	<i>10,539</i>	<i>2,210,761</i>	<i>4,669,927</i>	<i>78,888</i>	<i>4,748,815</i>
<i>Foreign Countries—</i>						
France ..	..	60	60	..	..	..
Germany, Federal Republic of ..	..	..	..	50	..	50
United States of America ..	..	..	..	6,329	2,504	8,833
<i>Total, Foreign Countries</i>	<i>..</i>	<i>60</i>	<i>60</i>	<i>6,379</i>	<i>2,504</i>	<i>8,883</i>
Grand Total ..	2,200,222	10,599	2,210,821	4,676,306	81,392	4,757,698

§ 15. Exports According to Industries.

1. Classification.—The following table provides an analysis of the total recorded value of Australian exports for the years 1956–57 to 1958–59. This analysis is designed to show fluctuations in the value of exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily arbitrary in some respects.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL GROUPS.

Industrial Group.	Value. (£'000.)			Proportion of Value of Exports of Australian Produce (excluding Gold). (Per cent.)		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Agriculture, Horticulture and Viticulture—						
Unprocessed	91,455	56,495	77,991	9.5	7.1	9.8
Processed	73,705	77,028	78,213	7.6	9.7	9.9
Total	165,160	133,523	156,204	17.1	16.8	19.7
Pastoral—						
Unprocessed	486,237	388,386	366,510	50.4	48.7	46.3
Processed	81,192	74,384	67,044	8.4	9.3	8.5
Total	567,429	462,770	433,554	58.8	58.0	54.8
Dairy and Farmyard—						
Unprocessed	3,495	3,442	2,019	0.4	0.4	0.3
Processed	44,344	30,274	41,681	4.6	3.8	5.2
Total	47,839	33,716	43,700	5.0	4.2	5.5
Mines and Quarries (other than Gold)—						
Unprocessed	27,763	25,552	19,230	2.9	3.2	2.4
Processed	51,330	32,296	32,750	5.3	4.1	4.1
Total (a)	79,093	57,848	51,980	8.2	7.3	6.5
Fisheries—						
Unprocessed	4,011	3,961	4,322	0.4	0.5	0.5
Processed	1,635	1,789	1,249	0.2	0.2	0.2
Total	5,646	5,750	5,571	0.6	0.7	0.7
Forestry—						
Unprocessed	963	740	522	0.1	0.1	0.1
Processed	3,167	3,932	3,866	0.3	0.5	0.5
Total	4,130	4,672	4,388	0.4	0.6	0.6
Total Primary Produce—						
Unprocessed	613,924	478,576	470,594	63.7	60.0	59.4
Processed	255,373	219,703	224,803	26.4	27.6	28.4
Total	869,297	698,279	695,397	90.1	87.6	87.8
Manufactures	73,969	72,583	70,988	7.7	9.2	9.0
Refined Petroleum Oils	10,097	15,385	14,702	1.0	1.9	1.9
Unclassified	11,654	10,554	10,465	1.2	1.3	1.3
Total Australian Produce (excluding Gold)	965,017	796,801	791,552	100.0	100.0	100.0
Re-exports (excluding Gold)	13,662	14,793	16,632	..	..	..
Gold Exports(a)	14,227	6,352	3,279	..	..	..
Total Recorded Value of Exports	992,906	817,946	811,463	..	..	..

(a) The value of refined newly-won gold was £16,599,179 in 1956-57, £17,301,072 in 1957-58 and £16,644,752 in 1958-59.

2. Relative Importance of Industrial Groups.—In the year 1958-59, Australian produce (other than gold) exported amounted to approximately £792 million. Of this, £695 million or 88 per cent. was mainly produce of primary industries, comprising £470 million of unprocessed produce and £225 million of goods which had been processed in some degree before export. The values of the principal individual items of processed primary produce exported were:—Raw sugar, £32,163,000; flour, etc., £14,001,000; canned fruit, £12,950,000; dried fruit, £12,743,000; wool (scoured, tops, etc.), £38,010,000; canned meats, £15,434,000; butter, £24,956,000; milk (condensed, dried, etc.), £10,234,000; pig lead, £12,561,000; lead bullion, £6,218,000; zinc bars, blocks, etc., £3,884,000; copper ingots, £5,348,000; and undressed timber, £3,358,000.

The value of manufactures exported as classified above was £71 million, or approximately 9 per cent. of Australian produce (other than gold) exported in 1958-59. The values of principal individual items here included were:—Manufactures of metal, £40,693,000; implements and machinery, £6,915,000; drugs and chemicals, £5,705,000, and paper and stationery, £2,511,000.

The items enumerated indicate the arbitrariness of the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Refined petroleum oils exported are shown separately, as they consist of imported crude oils refined in Australia and re-exported in the refined form. The values of principal individual items shown as "unclassified" in 1958-59 were:—Individual consignments of less than £50 in value, £3,946,000; and military equipment and stores and supplies for Australian projects overseas, £3,779,000.

§ 16. Australian Index of Export Prices.

1. **General.**—Over the past fifty years the exports of Australia have become increasingly diversified, but, although the proportion of highly manufactured exports has increased, it is still small in relation to total exports. Most of the exports still consist of basic products such as wool, wheat, butter, etc.

2. **Historical.**—An annual index of export prices has been published by this Bureau since its inception.

The first index was compiled annually for the years 1901 to 1916-17. The method of computation was to select all articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the base year). The total value so obtained was divided into the total actual (recorded) value of these exports for the year concerned. The quotient (multiplied by 1,000) thus obtained was the export price index number for that year.

The method was changed in 1918. A weight for all principal exports was calculated on the average quantities of exports for the nineteen and a half years from 1st January, 1897 to 30th June, 1916. To these weights were applied the "average unit export values" of each export in successive years, and a weighted aggregative index of "price" variations was derived. It was published for the years 1897 to 1929-30, and particulars of this index were last published in Official Year Book No. 24, page 147.

After the 1914-18 War, however, the relative importance of different exports changed considerably. In addition, the pattern of exports varied considerably from year to year.

3. **Present Indexes.**—For the reasons just mentioned, two new series of monthly export price indexes—one using fixed weights and the other using changing weights—were published in 1937, computed back to 1928. These are the only export price indexes now published.

The data on which both series are based differ from those utilized in the old series of annual index numbers. The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the "unit values" declared at the Customs.

The old index took no account of gold exports. The omission is natural and reasonable for countries which produce little or no gold. For gold producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

The two series are compiled monthly, and both relate to commodities which normally constitute about 80 per cent. of the total value of exports of merchandise and silver together with gold production.

4. **The Fixed Weights Index.**—(i) *General.* This is a weighted aggregative index of price variations. It was computed back to 1928, with that year taken as base. It is now usually published on the base: Average of three years ended June, 1939 = 100.

The purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for variations during the period in the proportions of the different kinds of exports.

(ii) *Weights.* The original weights (used for the period 1928 to 1936) were, in round figures, the average annual exports (production in the case of gold) during the five years 1928-29 to 1932-33.

From July, 1936, the weights were revised, and are now based on the average annual exports (production in the case of gold) during the three years 1933-34 to 1935-36. The break of continuity has been bridged by the usual method of splicing. Consideration is being given to adopting weights for a post-war period.

The weight adopted for wheat takes into account the wheat equivalent of flour exported; the weight allotted to greasy wool takes account of the greasy equivalent of scoured wool, tops, and wool on skins; and for some metals allowance is made for the metallic content of ores and concentrates exported.

The twenty items, together with the units of quantity and the weights or "quantity multipliers", are given in the following table.

EXPORT PRICE INDEX: COMMODITIES AND WEIGHTING SYSTEM.

(FROM 1ST JULY, 1936.)

Item.	Unit of Quantity.	"Quantity Multipliers", (Weights).	Percentage Distribution of Total Aggregate.			
			Base Period (1936-37 to 1938-39).		1958-59.	
			Excluding Gold.	Including Gold.	Excluding Gold.	Including Gold.
Wool	lb.	975,000,000	49.05	45.63	50.61	48.76
Wheat (a)	bushel	101,000,000	18.34	17.06	18.27	17.60
Butter	cwt.	2,140,000	12.21	11.36	8.01	7.72
Metals—						
Silver	oz.	7,300,000	0.68	0.64	8.07	7.78
Copper	ton	3,600	0.20	0.20		
Tin	"	1,300	0.31	0.28		
Zinc	"	99,000	2.05	1.90		
Lead	"	208,500	4.10	3.81	8.01	7.70
Meats—						
Beef	lb.	182,000,000	2.56	2.38		
Lamb	"	138,000,000	3.56	3.31		
Mutton	"	44,000,000	0.58	0.54	3.52	3.39
Pork	"	16,000,000	0.43	0.40		
Sugar	ton	305,000	2.58	2.40		
Dried Fruits—						
Sultanas	"	38,200	1.45	1.35	2.11	2.04
Raisins	"	3,000	0.12	0.11		
Currants	"	13,400	0.37	0.35		
Tallow	cwt.	600,000	0.69	0.64	0.72	0.70
Hides—						
Cattle	lb.	28,000,000	0.64	0.59	0.68	0.65
Calf	"	1,800,000	0.08	0.07		
Gold	fine oz.	937,000		6.98		3.66
			100.00	100.00	100.00	100.00

(a) Includes "wheat equivalent" of flour.

The percentage distributions of the "Total Aggregate" shown in the foregoing table are of importance, firstly, as showing their variations from time to time as the result of differential price movements as between the various commodities or groups, and secondly, as regards the effect on the indexes as a whole of the percentage price variations for each commodity or group.

(iii) *Prices.* The adoption of current market prices (as distinct from the former average unit export values) in the present indexes permitted the use of standards for each commodity. All export parities are calculated from price quotations from the most reliable and representative sources available. In most cases, the prices used are those at which current sales are being effected.

(iv) *Index Numbers.* The following table shows export price index numbers for Australia for individual commodities, groups of commodities, and all groups combined for each financial year from 1936-37 to 1958-59 and monthly from July, 1958 to January, 1960.

EXPORT PRICE INDEX: AUSTRALIA.

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES, AND ALL GROUPS COMBINED.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Period.	Wool.	Wheat.	Butter.	Metals. (a)	Meats. (b)	Sugar.	Dried Fruits. (c)	Tallow.	Hides. (d)	Gold.	All Groups.	
											Ex- cluding Gold.	In- cluding Gold.
Percentage Dis- tribution of Base Aggregate (1936-37 1938-39) to }	45.63 49.05	17.06 18.34	11.36 12.21	6.83 7.34	6.63 7.13	2.40 2.58	1.81 1.94	0.64 0.69	0.66 0.72	6.98 ..	100.00 ..	100.00 ..
1936-37 ..	122	123	92	120	98	104	103	122	113	99	116	115
1937-38 ..	99	111	107	96	106	92	103	100	100	98	102	102
1938-39 ..	79	66	101	84	96	104	94	78	87	103	82	83
1939-40 ..	98	82	108	92	102	126	94	76	120	118	96	98
1940-41 ..	101	102	110	95	103	137	95	82	98	121	103	104
1941-42 ..	101	105	110	101	109	137	106	114	133	120	105	106
1942-43 ..	117	106	114	100	112	152	112	119	145	119	114	114
1943-44 ..	117	116	114	113	113	159	121	123	151	119	117	117
1944-45 ..	117	154	147	129	122	172	128	151	147	120	130	130
1945-46 ..	117	213	147	196	123	213	137	161	152	122	148	146
1946-47 ..	173	305	173	308	139	264	152	361	334	122	209	203
1947-48 ..	287	420	193	372	146	320	157	436	364	122	296	283
1948-49 ..	365	413	233	478	171	343	162	499	421	122	348	332
1949-50 ..	473	400	250	421	196	369	176	400	479	164	399	383
1950-51 ..	999	432	271	689	209	410	226	356	752	176	690	654
1951-52 ..	564	436	291	811	263	464	302	451	486	184	495	473
1952-53 ..	616	445	313	504	314	501	297	358	369	186	505	483
1953-54 ..	615	411	325	450	338	479	287	321	336	179	496	474
1954-55 ..	538	357	313	511	344	445	267	349	218	178	450	431
1955-56 ..	464	324	320	562	355	450	286	353	238	178	414	397
1956-57 ..	578	327	250	545	368	501	319	357	240	178	464	444
1957-58 ..	471	357	218	398	333	518	341	368	240	178	400	383
1958-59 ..	362	350	230	386	394	475	(e) 382	367	335	178	(e) 351	(e) 339
1958-59—												
July ..	(f) 400	366	178	371	351	481	351	384	228	178	361	348
August ..	354	369	190	369	370	477	363	375	234	178	342	330
September ..	354	363	190	372	393	476	370	383	250	178	343	332
October ..	336	363	195	391	405	473	385	382	270	178	337	326
November ..	339	355	222	404	407	477	390	378	273	178	342	330
December ..	328	353	242	389	404	470	391	375	285	178	337	326
January ..	321	347	250	390	408	490	(f) 391	372	287	178	334	323
February ..	339	336	250	384	387	474	(f) 391	360	341	178	339	328
March ..	347	336	249	385	382	477	(f) 391	357	428	178	343	331
April ..	415	337	249	382	393	473	(e) 387	348	521	178	(e) 377	(e) 364
May ..	415	339	262	396	402	477	(e) 388	347	456	178	(e) 381	(e) 367
June ..	400	336	287	401	429	458	(e) 387	341	452	178	(e) 378	(e) 364
1959-60—												
July ..	(f) 407	332	312	402	439	437	(e) 387	327	464	178	(e) 384	(e) 370
August ..	445	340	336	418	411	461	(e) 365	324	461	178	(e) 406	(e) 390
September ..	430	331	350	420	376	438	(e) 360	309	440	178	(e) 396	(e) 380
October ..	430	330	359	431	(g)	440	(e) 359	307	395	178	(e) 398	(e) 382
November ..	422	333	367	437	(g)	458	(e) 358	304	312	178	(e) 395	(e) 380
December ..	437	333	367	436	(g)	458	(e) 356	307	334	178	(e) 405	(e) 389
January ..	(e) 437	333	355	435	(g)	455	(e) 327	300	345	178	(e) 405	(e) 389

(a) Silver, copper, tin, zinc, lead. (b) Beef, lamb, mutton, pork. Guaranteed minimum prices are used when operative. (c) Sultanias, raisins, currants. (d) Cattle hides, calf skins. (e) Preliminary. (f) Nominal. (g) Actual prices realized not yet fully known; provisional series are included in "All Groups" Indexes.

A graph showing index numbers for All Groups (including Gold) appears on page 490.

The group indexes in the table above show the great fluctuations and the wide dispersion of prices of export commodities in recent years. In particular, very great movements upwards and downwards have occurred in the price of wool. Since wool is a predominant export, and comprises 46 per cent. of the base aggregate of the index, fluctuations in wool prices obscure the effect on the "All Groups" Index of movements in prices of the other components. For this reason "Wool" and "All Groups Excluding Wool" are shown separately in the table following. The movement of the weighted average index for "All Groups Excluding Wool" contrasts with the pronounced fluctuations in prices of wool.

EXPORT PRICE INDEX: WOOL AND "OTHER GROUPS", AUSTRALIA.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Period.	Wool.	Other Groups.	All Groups.	Period.	Wool.	Other Groups.	All Groups.
1945-46 ..	117	171	146	1956-57—			
1946-47 ..	173	228	203	July ..	490	330	403
1947-48 ..	287	280	283	August ..	520	330	417
1948-49 ..	365	305	332	September..	566	336	441
1949-50 ..	473	308	383	October ..	551	332	432
1950-51 ..	999	365	654	November..	581	331	445
1951-52 ..	564	397	473	December ..	588	329	447
1952-53 ..	616	371	483	January ..	596	330	451
1953-54 ..	615	356	474	February ..	611	330	458
1954-55 ..	538	342	431	March ..	596	329	451
1955-56 ..	464	342	397	April ..	618	331	462
1956-57 ..	578	331	444	May ..	626	333	467
1957-58 ..	471	313	385	June ..	596	332	452
1958-59 ..	362	(a) 320	(a) 339				
1953-54—				1957-58—			
July ..	(b) 641	369	493	July ..	(b) 596	327	450
August ..	(b) 634	367	488	August ..	551	331	431
September..	626	365	484	September..	543	328	426
October ..	634	363	486	October ..	498	323	403
November..	634	360	485	November..	483	315	391
December ..	611	358	473	December ..	445	305	369
January ..	603	354	468	January ..	453	306	373
February ..	581	350	455	February ..	468	303	378
March ..	581	351	456	March ..	422	304	358
April ..	(b) 596	348	461	April ..	400	301	346
May ..	618	346	470	May ..	392	303	344
June ..	622	346	472	June ..	400	306	348
1954-55—				1958-59—			
July ..	(b) 622	338	468	July ..	(b) 400	304	348
August ..	566	338	442	August ..	354	310	330
September..	566	339	442	September..	354	312	332
October ..	536	344	431	October ..	336	318	326
November..	513	343	421	November..	339	323	330
December ..	532	348	432	December ..	328	324	326
January ..	520	345	425	January ..	321	325	323
February ..	528	342	427	February ..	339	318	328
March ..	528	341	426	March ..	347	319	331
April ..	520	340	422	April ..	415	(a) 321	(a) 364
May ..	520	340	422	May ..	415	(a) 327	(a) 367
June ..	505	343	417	June ..	400	(a) 334	(a) 364
1955-56—				1959-60—			
July ..	(b) 505	347	419	July ..	(b) 407	(a) 338	(a) 370
August ..	453	347	395	August ..	445	(a) 344	(a) 390
September..	437	347	388	September..	430	(a) 339	(a) 380
October ..	437	351	390	October ..	430	(a) 343	(a) 382
November..	437	352	391	November..	422	(a) 344	(a) 380
December ..	453	352	398	December ..	437	(a) 349	(a) 389
January ..	460	349	400	January ..	(a) 437	(a) 349	(a) 389
February ..	460	340	395				
March ..	453	335	388				
April ..	468	325	390				
May ..	498	323	403				
June ..	(b) 505	331	411				

(a) Preliminary.

(b) Nominal.

5. The Changing Weights Index.—This series was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. The fixed weights index numbers indicate satisfactorily the general

trend of export prices, but take no account of the relative quantities actually sold at the prices ruling in particular months. The changing weights index numbers, shown below, take account of this factor. In computing these, the "quantity multipliers" are the quantities actually exported (sold, in some cases) in the months (or periods) to which the index numbers relate.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period, i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month were the same as their proportions in the corresponding month of the previous year. Accordingly, the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather than two close alternatives, the two index numbers are multiplied together and the square root of the product is extracted. This is taken to be the index number for the month, the prices of the corresponding month of the previous year being taken as base.

The index numbers for the whole or portion of a year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process involves merely the cumulative addition of the aggregates computed for the individual months, and extraction of the index numbers as explained above.

Index numbers computed on this basis are shown in the following table for the months July, 1958 to January, 1960 and for trade year periods ending in those months:—

EXPORT PRICE INDEX: CHANGING WEIGHTS.

(Base: Corresponding month (or period) of preceding year = 100.)

Month.	Month stated compared with same month of preceding year.		Period of trade year ending in month stated compared with same period of preceding year.	
	All Groups, Excluding Wool.	All Groups. (a)	All Groups, Excluding Wool.	All Groups. (a)
1958-59—				
July	93	90	93	90
August	93	80	93	83
September	97	76	95	79
October	100	78	96	79
November	106	81	98	79
December	114	87	100	81
January	114	86	102	81
February	110	83	103	81
March	107	90	103	82
April	(b) 112	(b) 107	(b) 104	(b) 84
May	(b) 112	(b) 108	(b) 104	(b) 86
June	(b) 112	(b) 104	(b) 105	(b) 87
1959-60—				
July	(b) 114	(b) 113	(b) 114	(b) 113
August	(b) 111	(b) 117	(b) 113	(b) 115
September	(b) 111	(b) 117	(b) 112	(b) 116
October	(b) 109	(b) 120	(b) 111	(b) 118
November	(b) 107	(b) 117	(b) 110	(b) 118
December	(b) 109	(b) 122	(b) 110	(b) 118
January	(b) 105	(b) 122	(b) 109	(b) 119

(a) For certain months a nominal price is used for wool as indicated in the preceding two tables.

(b) Preliminary.

Monthly export price index numbers are issued in the mimeographed publication *Monthly Index of Australian Export Prices*, in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* and the *Quarterly Summary of Australian Statistics*.

§ 17. External Trade of Australia and other Countries.

1. **Essentials of Comparison.**—Direct comparison of the external trade of any two countries is possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in one may be declared by merchants, whereas in another they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would result from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total.

2. **"Special Trade" of Various Countries.**—In the following table the figures, which are expressed in Australian currency, relate as nearly as possible to imports cleared for consumption in the various countries specified and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The countries listed below are not necessarily all the important trading countries of the world, but those important countries for which comparable statistics are available.

IMPORTS CLEARED FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY^(a)): VARIOUS COUNTRIES, 1958.

Country.	Trade. (£A. Million.)			Trade per Head of Population.(£A.)		
	Imports Cleared. c.i.f.	Exports. f.o.b.	Total.	Imports Cleared.	Exports.	Total.
United States of America	(b) 5,765.2	7,900.4	13,665.6	33.0	45.2	78.2
United Kingdom ..	(c) 4,512.1	3,964.3	8,476.4	87.3	76.7	164.0
Germany, Federal Re-public of ..	3,286.2	3,931.7	7,217.9	63.0	75.4	138.4
France ..	2,501.8	2,284.8	4,786.6	56.2	51.3	107.5
Canada ..	(b) 2,388.8	2,267.9	4,656.7	140.1	133.0	273.1
Netherlands ..	1,618.3	1,436.6	3,054.9	144.7	128.4	273.1
Belgium-Luxemburg ..	1,396.9	1,359.8	2,756.7	154.3	150.2	304.5
Japan ..	(d) 1,354.0	1,283.9	2,637.9	14.8	14.0	28.8
Italy ..	1,414.7	1,132.1	2,546.8	29.0	23.2	52.2
Sweden ..	(d) 1,056.3	932.1	1,988.4	142.5	125.7	268.2
Australia ^(e) ..	(b) 779.2	791.6	1,570.8	78.3	79.5	157.8
Switzerland ..	761.6	687.1	1,448.7	146.9	132.5	279.4
Denmark ..	(d) 609.8	575.0	1,184.8	135.1	127.4	262.5
Norway ..	(d) 584.4	331.7	916.1	165.7	94.1	259.8
Austria ..	479.5	409.8	889.3	68.3	58.4	126.7
Spain ..	379.0	217.0	596.0	12.8	7.3	20.1
Indonesia ..	229.0	337.1	566.1	2.6	3.9	6.5
Egypt ..	305.4	209.8	515.2	12.3	8.5	20.8
Chile ..	185.3	173.7	359.0	25.4	23.8	49.2
Greece ..	252.2	103.6	355.8	30.9	12.7	43.6
Turkey ..	140.6	110.3	250.9	5.4	4.2	9.6

(a) Includes silver. (b) f.o.b. (c) Covers goods imported less goods re-exported.
(d) Covers goods imported as distinct from goods cleared for home consumption. (e) Year ended June, 1959.

§ 18. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show Australian imports and exports for each of the calendar years 1955 to 1959.

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA.
(£'000.)

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
1955	862,547	777,640	2,480	20,320	865,027	797,960
1956	764,597	823,422	3,235	22,236	767,832	845,658
1957	751,543	981,694	2,509	13,891	754,052	995,585
1958	792,891	738,913	2,541	4,083	795,432	742,996
1959(a)	827,653	898,623	2,174	3,339	829,827	901,962

(a) Subject to revision.

§ 19. Excise.

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise revenue are shown in Chapter XXI.—Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1957–58 and 1958–59.

QUANTITY OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA.

Article.	1957–58.	1958–59.	Article.	1957–58.	1958–59.
	proof gallons.	proof gallons.		lb.	lb.
Spirits—			Tobacco	18,109,744	16,561,594
Brandy	702,745	753,881	Snuff	535	865
Gin	353,957	353,706	Cigars—		
Whisky	403,526	467,762	Hand-made	19,571	16,491
Rum	513,111	570,755	Machine-made	99,000	94,150
Liqueurs	57,854	58,008	Total Cigars	118,571	110,641
Other	17,989	24,831	Cigarettes—		
Total Spirits (Potable) ..	2,049,182	2,228,943	Hand-made	32,185,864	34,991,739
			Machine-made		
Spirits for—			Total Cigarettes	32,185,864	34,991,739
Fortifying Wine	2,219,771	2,194,626		60 papers or tubes.	60 papers or tubes.
Industrial or Scientific purposes	234,544	235,059	Cigarette Papers and Tubes	118,240,926	111,245,931
Manufacture of—				tons.	tons.
Essences	104,984	98,485	Coal	17,691,705	17,335,395
Scents and Toilet Preparations	64,257	64,396		gross boxes.	per 8,640 matches.
Vinegar	139,711	147,998	Matches	3,337,788	3,362,949
				gallons.	gallons.
	gallons.	gallons.	Petrol	871,265,708	918,682,463
Beer	215,637,916	214,800,013		doz. packs.	doz. packs.
			Playing Cards	93,650	96,771

§ 20. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the last published statements were for the year 1909. Later, the

Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July, 1953.

At the Conference of Statisticians held in January, 1928, it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

Interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania, prepared by the Deputy Commonwealth Statisticians in those States. The Deputy Commonwealth Statistician in South Australia publishes some figures for that State, made up from the records of Western Australia and Tasmania. The statistics of interstate trade for New South Wales and Victoria are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

§ 21. The Australian Balance of Payments.

1. **Introduction.**—Defining the balance of payments, the International Monetary Fund, in the second edition of its *Balance of Payments Manual* states "[It] . . . is a systematic record of all economic transactions during the period between residents of [a] country and residents of other countries." In a broad sense, therefore, statistics of the balance of payments summarize in money terms the economic relations existing between a national economy and the rest of the world, and are pre-requisite to any attempt to examine the influence of external factors on the domestic economy.

The Australian economy is subject to large fluctuations in the level of export income and is affected in important respects by movements of overseas capital. As a result, balance of payments estimates have always assumed a particular importance in Australia. Between 1948–49 and 1958–59, for example, the value of exports was equivalent to 21 per cent. of national income, fluctuating between 31 per cent. of national income in 1950–51, the year of record wool prices, and 16 per cent. in 1958–59, a year of relatively low wool prices.

Official balance of payments estimates for Australia were first published for the years 1928–29 to 1930–31 as an appendix to Official Year Book No. 24. Prior to that the only estimates published by this Bureau related to the balance of trade, with some reference to international transactions. Since 1930–31, estimates of the balance of payments have been published each year, except during the war period 1939 to 1945. From the first half of the year 1950–51, statistics of the balance of payments have been issued twice yearly in the mimeographed publication *The Australian Balance of Payments*. This publication brings the estimates forward to the end of the most recent financial year or half year and together with a printed volume *The Australian Balance of Payments, 1928–29 to 1951–52* provides also (i) a description of the various items included in the official estimates, (ii) an indication of the sources from which the estimates are derived, and (iii) an explanation of the methods used in making them. The following paragraphs contain a brief description of the concepts adopted and a summary of the transactions for the years 1956–57 to 1958–59.

The form of the Australian balance of payments closely follows the pattern set out by the International Monetary Fund for the presentation of balance of payments statistics, although modifications have been introduced to accord with Australian conditions.

In the definitions adopted by the International Monetary Fund a basic distinction is drawn between "current" transactions and "capital" transactions. Current transactions consist of all transactions involving the transfer of ownership of goods or the rendering of services between residents of one country and residents of another country. Also included are items such as donations, reparations, etc. Capital transactions consist of all transactions involving the transfer of money, claims to money, and titles to investments, between residents of one country and those of another country.

This distinction is maintained in the Australian balance of payments accounts. Thus, transactions involving the transfer of the ownership of goods, i.e., imports and exports, and services, such as freight and insurance, investment income, etc., are included in current account, while predominantly financial transactions are included in capital account.

By definition, and because of the method of constructing the accounts, the balance of payments on current account is always equivalent to the balance on capital account. In practice, however, there are "errors and omissions" in the estimates. These are referred to as the "balancing item". This item includes errors and omissions in the estimates made for all items in both current and capital accounts, short term financing transactions and other timing differences between the statistical recording of items such as imports, exports, transportation items, changes in share ownership, etc. and the crediting and debiting of payments for these transactions against Australia's international reserves.

2. **Current Account.**—The balance of payments on current account is constructed in the form of a series of credit and debit entries, the former comprising all transactions which result in receipts of foreign exchange and the latter all those resulting in payments in foreign exchange.

Within the current account the most important single relationship is the balance of trade—the difference between the value of exports and the value of imports as adjusted for balance of payments purposes. The balance of trade showed surpluses of £260.2 million in 1956–57, £20.4 million in 1957–58 and £13.8 million in 1958–59.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA.
(£A. million.)

Particulars.	1956–57.	1957–58.	1958–59.(a)
CREDITS.			
1. Exports f.o.b.	977.7	810.4	810.2
2. Gold Production	16.0	16.3	16.5
3. Transportation—			
Oversea ships	63.4	64.2	70.0
Other	8.1	7.3	8.2
	71.5	71.5	78.2
4. Travel	9.0	7.5	8.0
5. Income from Investment—			
Undistributed Income	3.3	4.3	2.4
Other	22.5	30.2	22.1
	25.8	34.5	24.5
6. Government	15.7	19.0	19.3
7. Miscellaneous	7.5	7.7	8.7
8. Donations, etc.—			
Immigrants' Funds, etc.	16.1	17.4	19.6
Other	6.3	7.3	7.4
	22.4	24.7	27.0
<i>Total Credits</i>	<i>1,145.6</i>	<i>991.6</i>	<i>992.4</i>
DEBITS.			
9. Imports f.o.b.	717.5	790.0	796.4
10. Transportation—			
Freight	108.0	119.0	114.0
Other	14.6	15.0	15.2
	122.6	134.0	129.2
11. Travel	22.2	27.7	28.6
12. Income from Investment—			
Public Authority Interest	22.7	22.8	25.1
Portfolio Investment	8.0	6.3	11.6
Direct Investment	37.7	48.9	48.3
Undistributed Income	44.7	39.7	58.7
	113.1	117.7	143.7
13. Government—			
Defence	4.4	11.5	12.6
Papua and New Guinea	11.5	12.5	13.5
Other	12.4	13.7	14.6
	28.3	37.7	40.7
14. Miscellaneous	21.3	28.2	31.9
15. Donations, etc.—			
Personal	18.2	16.8	15.2
Colombo Plan, etc.	4.5	4.8	4.8
Other	8.5	8.9	8.8
	31.2	30.5	28.8
<i>Total Debits</i>	<i>1,056.2</i>	<i>1,165.8</i>	<i>1,199.3</i>
Balance on Current Account	+89.4	–174.2	–206.9

(a) Preliminary. For revised figures see Appendix.

NOTE.—Total marine insurance premiums payable on Australian imports (whether payable in Australia or overseas) were £3.7 million in 1956–57, £4.1 million in 1957–58 and £4.2 million in 1958–59.

When current account invisible transactions are taken into consideration, the trade surplus in 1956-57 was reduced to £89.4 million. In 1957-58 and again in 1958-59, the effect of including current account invisible transactions was to change small surpluses in the trade balance into substantial deficits for all current account transactions—these deficits amounted to £174.2 million in 1957-58 and £206.9 million in 1958-59, respectively.

The most important of these invisible transactions are the transportation items, which appear on both the debit and credit sides of current account. The principal component on the debit side is freight—mainly freight on imports into Australia (£108 million in 1956-57, £119 million in 1957-58 and £114 million in 1958-59)—and on the credit side, expenditure of overseas ships in Australian ports (£63.4 million in 1956-57, £64.2 million in 1957-58 and £70.0 million in 1958-59).

The item next in importance after the transportation items is income from investment. The debit entries under this item include interest, dividends, rents, etc. payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items also include undistributed income, for which, since no actual monetary payment occurs, is compensated for by a corresponding entry in capital account showing an increase in the value of overseas or Australian investment respectively. Investment income debits were £113.1 million in 1956-57, £117.7 million in 1957-58 and £143.7 million in 1958-59. Credits in the same periods were £25.8 million, £34.5 million and £24.5 million respectively.

The remaining items are much smaller than the two groups already mentioned. Government transactions debits in these years were in the vicinity of £30-40 million each year and credits about £20 million. Debits on account of donations etc., were about £30 million, with credits of approximately £25 million a year.

One item of some conceptual importance is Australian gold production (less industrial absorption), which constitutes an immediate addition to Australia's reserves of gold and foreign currency. A separate entry is shown as a credit in current account. At the same time exports of gold are excluded from recorded trade figures.

3. Capital Account.—The capital account shows the annual movements in items which are regarded as Australian overseas assets and those which are regarded as Australian overseas liabilities.

On the assets side, by far the most important item is Australia's holdings of monetary gold and foreign exchange, usually referred to as international reserves. These reserves increased by £211.5 million in 1956-57, but decreased by £41.1 million in 1957-58 and by £9 million in 1958-59.

On the liabilities side, the most important items are public authority debt and direct investment in Australian companies.

In recent years loans resulting in net inflows of £3.1 million in 1956-57, £13.2 million in 1957-58 and £2.2 million in 1958-59 have been negotiated with the International Bank.

In 1956-57 official loans other than from the International Bank showed a reduction in total of £33.4 million. This was due mainly to the repatriation to Australia of £32.6 million of the Reserve Bank's holdings of Australian Government securities originally floated in London and taken up by the Note Issue Department of the Bank in 1931. An offsetting entry appears in Item 3. Apart from the International Bank Loan referred to above loan operations overseas resulted in a small outflow in 1957-58. In 1958-59, however, there was a substantial net inflow of £32.6 million from official borrowing operations on the London and New York markets.

In 1958-59 under Item 2 there is an increase of £44.6 million in assets. This shows the effect of arrangements which raised Australia's quota in the International Monetary Fund from \$200 million to \$300 million. A gold payment of £11.2 million was made to the I.M.F. in respect of 25 per cent. of the additional quota and the remaining 75 per cent. is offset in Item 8. Item 8 also includes payment of £6.3 million related to Australia's initial subscription to the I.M.F. and £3.1 million made available to the International Bank for use in its loan operations. In all, these transactions represented transfers in respect of subscriptions of £20.6 million in gold and foreign currency to the I.M.F. and the International Bank during the year.

The inflow, due to direct investment in Australian companies over the period shown was much greater than for official borrowing overseas and showed less variation. Excluding life offices, direct investment in Australian companies amounted to £86.8 million in 1956-57 and £90.1 million in 1957-58. Preliminary details for 1958-59 show a total of £98.7 million for the year. The amounts shown for these years included undistributed income of £44.7 million, £39.7 million and £58.7 million in the three years respectively.

Portfolio investment from overseas amounted to £11.1 million in 1956-57, £7.9 million in 1957-58 and £19.4 million in 1958-59.

As mentioned above, the balance on capital account is identical with the balance on current account, and the movement in international reserves reflects the combined movement of current and capital items. In practice, however, there is an unexplained residue which

is included in the table below as the balancing item. This item includes errors and omissions in the estimates made for all items in both current and capital accounts, short term financing transactions and other timing differences between the statistical recording of items such as imports, exports, transportation items, changes in share ownership, etc. and the crediting and debiting of payments for these transactions against Australia's international reserves. Substantial movements towards the end of the financial year in the pattern of exports and in the rate of portfolio investment in Australian industrial securities suggest that these timing factors might have been of more than usual importance in 1958-59.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA.
(£A. million.)

Particulars.	1956-57.	1957-58.	1958-59.(a)
CHANGE IN ASSETS.			
1. Gold and Foreign Exchange	211.5	— 41.1	— 9.0
2. Subscriptions to I.M.F., I.B.R.D. and I.F.C. ..	1.0	..	44.6
3. Other Official Transactions	— 35.6	1.3	— 6.2
4. Marketing Authorities	— 4.4	— 2.1	6.0
5. Portfolio Investment	— 0.9	— 2.3	— 2.8
6. Direct investment—			
Branches—Unremitted Profits	0.7	0.7	1.0
—Other	6.8	1.9	4.1
Subsidiaries—Undistributed Profits	2.6	3.6	1.4
—Other	0.8	1.5	3.7
<i>Total—Change in Assets</i>	<i>182.5</i>	<i>— 36.5</i>	<i>42.8</i>
CHANGE IN LIABILITIES.			
7. Official Loans—			
I.B.R.D.	3.1	13.2	2.2
Other Commonwealth	3.2	0.7	11.3
States	— 33.4	2.1	22.2
Other	— 3.3	— 3.6	— 0.2
Discounts and Bonuses	0.1	..	— 0.7
8. Other I.M.F. and I.B.R.D.	— 1.0	— 3.1	23.9
9. Australian Currency held by Foreign Banks ..	0.3	— 0.2	— 1.0
10. Portfolio Investment—			
Government Securities	— 1.4	— 2.1	— 4.2
Companies, etc.	11.1	7.9	19.4
11. Direct Investment—			
Branches—Unremitted Profits	7.5	2.2	7.4
—Other	8.3	7.0	12.9
Subsidiaries—Undistributed Profits	37.2	37.5	51.3
—Other	33.8	43.4	27.1
12. Life Assurance Offices	— 1.1	— 4.8	— 5.0
13. Balancing Item	28.7	37.5	83.1
<i>Total—Change in Liabilities</i>	<i>93.1</i>	<i>137.7</i>	<i>249.7</i>
Balance on Capital Account	— 89.4	174.2	206.9

(a) Preliminary. For revised figures see Appendix.

NOTE.—Minus sign (—) denotes decrease.

4. **Balance of Payments on Current Account—Monetary Groups.** Estimates are also made of Australia's current account transactions with various countries. With the exception of "dollar" countries, however, sufficient information is not yet available for the completion of regional capital accounts.

The table below shows the balance on current account in each of the years 1956-57 to 1958-59 for sterling and non-sterling countries. The latter include summaries for "dollar" countries, the European Economic Community and for "other" countries of the Organization for European Economic Cooperation (excluding the United Kingdom).

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA
BY MONETARY GROUP.(a)
 (£A. million.)

Particulars.	1956-57.	1957-58.	1958-59.(b)
Exports f.o.b.—			
Sterling—			
United Kingdom	277.4	221.2	261.5
Other	175.8	157.6	149.6
Non-Sterling—			
Dollar	86.1	70.2	87.5
E.E.C. (c)	238.6	187.9	142.7
Other O.E.E.C.	12.2	13.5	14.4
Other	187.6	160.0	154.5
Total	977.7	810.4	810.2
Imports f.o.b.—			
Sterling—			
United Kingdom	— 295.9	— 324.6	— 309.6
Other	— 123.5	— 124.7	— 131.8
Non-Sterling—			
Dollar	— 124.0	— 132.4	— 136.3
E.E.C. (c)	— 70.7	— 82.1	— 85.5
Other O.E.E.C.	— 29.9	— 33.0	— 32.5
Other	— 73.5	— 93.2	— 100.7
Total	— 717.5	— 790.0	— 796.4
Invisibles—			
Sterling—			
United Kingdom	— 56.0	— 59.2	— 70.4
Other	— 32.0	— 40.7	— 38.5
Non-Sterling—			
Dollar	— 61.0	— 67.1	— 87.4
E.E.C. (c)	— 16.2	— 15.5	— 15.0
Other O.E.E.C.	2.6	1.6	1.0
Other	— 17.8	— 19.8	— 17.7
International Agencies	— 6.4	— 7.0	— 7.2
Gold Production	16.0	16.3	16.5
Total	— 170.8	— 194.6	— 220.7
Balance on Current Account—			
Sterling—			
United Kingdom	— 74.5	— 162.6	— 118.5
Other	20.3	— 7.8	— 20.7
Non-Sterling—			
Dollar	— 98.9	— 129.3	— 136.2
E.E.C. (c)	151.7	90.3	42.2
Other O.E.E.C.	— 15.1	— 21.1	— 19.1
Other	96.3	47.0	36.1
International Agencies	— 6.4	— 7.0	— 7.2
Gold Production	16.0	16.3	16.5
Total	89.4	— 174.2	— 206.9

(a) For a list of the countries included in each monetary area see page 483. (b) Preliminary.
 For revised figures see Appendix. (c) European Economic Community, effective from 1st January, 1958.

NOTE.—Minus sign (—) denotes debits; other items are credits.

5. Balance of Payments with "Dollar" Countries. The following table shows a more detailed dissection of Australia's balance on current account with the dollar area. In addition to direct transactions with "dollar" countries, it shows all current account transactions which involve the receipt or payment of dollars (Item 9). Finally, details of investment and financing items, corresponding to a capital account, are shown, including the receipt and repayment of dollar loans from the International Bank and drawings on the International Monetary Fund.

Details of dollar financing transactions for 1958-59 may not be strictly comparable with those of previous periods due to events following the move to convertibility of non-resident sterling towards the end of 1958. As a result the estimates for some items shown in 1958-59 are incomplete.

BALANCE OF PAYMENTS WITH THE DOLLAR AREA: AUSTRALIA.
(£A. million.)

Particulars.	1956-57.	1957-58.	1958-59.(a)
CURRENT ACCOUNT.			
<i>Credits with Dollar Area—</i>			
1. Exports f.o.b.	86.1	70.2	87.5
2. Transportation	3.1	3.9	4.3
3. Other	6.0	11.0	10.7
Total credits	95.2	85.1	102.5
<i>Debits with Dollar Area—</i>			
4. Imports f.o.b.	124.0	132.4	136.3
5. Transportation—			
Freight	19.6	19.6	19.9
Other (incl. Marine Insurance)	1.2	1.6	2.0
6. Investment Income—			
Public Authorities Interest	2.7	3.0	4.1
Undistributed Income	19.5	19.0	30.6
Dividends, Profits, etc.	12.9	16.0	15.7
7. Miscellaneous—			
Travel	2.3	4.1	4.1
Business Expenses	2.3	2.3	3.3
Film Rentals	2.6	3.6	3.1
Other	7.0	12.8	19.6
Total debits	194.1	214.4	238.7
8. Balance with Dollar Area	— 98.9	— 129.3	— 136.2
9. Other current transactions	12.4	— 2.2	— 12.2
Balance on Current Account	— 86.5	— 131.5	— 148.4
INVESTMENT AND FINANCING ACCOUNT.			
10. Gold sales to the United Kingdom	25.0	..	..
11. Net purchase of dollars from the United Kingdom	23.2	70.3	69.1
12. Increase (—) in Aust. dollar balances	— 4.9	— 0.3	— 5.1
13. Official loans—			
I.B.R.D.	3.1	13.2	2.2
Other	0.1	9.1	16.4
14. I.M.F. and I.F.C.	— 1.0	..	..
15. Identified private capital—			
Undistributed income (net)	19.6	19.2	30.6
Other	7.0	5.8	13.2
16. Balancing Item	14.4	14.2	22.0
Balance on Investment and Financing Account	86.5	131.5	148.4

(a) Preliminary. For revised figures see Appendix.

NOTE.—In current account, — indicates debit items. In investment account, — indicates net decreases in liabilities or net increases in assets.

6. Conclusion.—Construction of the estimates of the Australian balance of payments involves the systematic assembly of much intricate data, from a variety of sources of which the following are the more important:—(i) Statistics of exports and imports, obtained in the first place from Australian trade statistics; (ii) information on particular invisible and capital items, obtained by regular inquiry from private organizations and government departments; (iii) details of many important receipts and payments of foreign exchange, provided by the banking system; (iv) information on dividends remitted, undistributed income and movements of private investment in companies, provided by statistics of overseas investment collected by this Bureau; and (v) information on international reserves, supplied by the Reserve Bank.

CHAPTER XIV.

TRANSPORT AND COMMUNICATION.

NOTE.—Most of the statistics in this chapter cover the year 1958–59. More detailed figures for this and earlier years will be found in the annual bulletin, *Transport and Communication*.

PART I.—TRANSPORT.

A. SHIPPING.

§ 1. Control of Shipping.

1. **War-time Control.**—An account of the action taken by the Commonwealth Government to control and regulate shipping throughout Australian waters during the 1939–45 War was given in Official Year Book No. 36, pages 121–30.

2. **Post-war Control and Developments.**—A brief account of the post-war control of shipping and the establishment of the Australian Stevedoring Industry Board and the Australian Shipping Board will be found in Official Year Book No. 39, pages 147–8.

The Maritime Industry Commission, established during the 1939–45 War under National Security legislation, was abolished on 19th December, 1952. Permanent legislation to cover many of the matters formerly dealt with by the Commission was enacted in 1952 in the form of amendments to the Navigation Act 1912–1950 (*see p. 528*).

As at 30th June, 1959, the Australian National Line operated 45 vessels totalling 183,420 gross tons, comprising eight "River" Class vessels of an average of 5,029 gross tons, five "B" Class vessels of an average of 3,923 gross tons, six "D" Class vessels of an average of 2,377 gross tons, two "W" Class vessels of an average of 2,407 gross tons, five "E" Class vessels of an average of 584 gross tons, two "Y" Class vessels of an average of 3,460 gross tons, eight "Lake" Class vessels of an average of 7,341 gross tons, three "I" Class vessels of an average of 4,890 gross tons, two "T" Class vessels of an average of 7,556 gross tons, two "N" Class vessels of an average of 1,467 gross tons, and two "ESK" Class vessels of an average of 1,607 gross tons, all of which were built in Australian yards, with the exception of four vessels, totalling 18,045 gross tons, which were built overseas. Of these, 19 are engaged in the heavy trades (two colliers), two are engaged in the shipment of pyrites and 19 carry general cargo. Owing to lack of interstate trade, four "River" Class vessels and one "D" Class vessel were laid up, pending sale.

In the international sphere, a convention establishing an Inter-governmental Maritime Consultative Organization within the framework of the United Nations was ratified by the last of the 21 ship-owning nations on 17th March, 1958. The major objectives of this organization are to provide machinery for co-operation among governments with shipping engaged in international trade, and to encourage the removal by governments of discriminatory action and unnecessary restrictions regarding such shipping.

§ 2. System of Record.

In the system of recording statistics of oversea shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (*see also* § 4, p. 516).

On arrival at, or departure from, a port in Australia, whether from or for an oversea country or from or for another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month, the information so obtained is forwarded to the Bureau of Census and Statistics. This arrangement has been in operation since 1st July, 1924.

The volume of the vessel, as distinct from the cargo it carries, is recorded in net tons, i.e., the gross tonnage or internal cubic capacity less certain deductions on account of crew spaces, engine room, water ballast and other spaces not used for passengers or cargo. It is thus a rough measure of the capacity of the vessel for cargo or passengers. The unit of measurement is the *ton register* of 100 cubic feet.

The majority of cargo is recorded in terms of the ton weight of 2,240 lb. However, some additional cargo, mainly bulky commodities, is shipped and recorded on the basis of 40 cubic feet of space used representing 1 ton measurement.

From 1st July, 1914, trade and shipping statistics of Australia have been recorded for financial years ending 30th June.

§ 3. Oversea Shipping.

1. **Total Movement.**—The following table shows the number of entrances and clearances combined of oversea vessels at Australian ports, and the aggregate net tonnage, during each of the years 1954–55 to 1958–59:—

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of Vessels	4,505	4,882	5,290	5,254	5,463
Net Tonnage '000 tons	20,003	22,324	23,659	24,515	26,019

The average net tonnage per vessel rose from 2,919 in 1921–22 to 4,763 in 1958–59.

Particulars of the total oversea movement of shipping for each year from 1822 to 1920–21 were published in Official Year Book No. 15, page 507, and for each year from 1921–22 to 1950–51 in Official Year Book No. 40, page 97.

2. **Total Oversea Shipping, States.**—The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the year 1958–59.

**OVERSEA SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT,
1958-59.**

Particulars.			N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	878	424	412	202	713	51	26	2,706	
	'000 net tons	3,995	2,601	1,413	833	3,858	180	67	12,947	
Clearances	No.	782	412	587	211	712	26	27	2,757	
	'000 net tons	3,652	2,550	2,234	822	3,632	122	60	13,072	

3. **Shipping Communication with Various Countries.**—A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate.

The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia.

**OVERSEA SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH
CLEARED, AUSTRALIA.**

Country from which Entered or for which Cleared.	With Cargo or in Ballast.	Net Tonnage Entered ('000).			Net Tonnage Cleared ('000).		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
United Kingdom	Cargo	1,568	1,654	1,656	2,120	1,954	2,079
	Ballast	17	35	51	10	4	39
New Zealand	Cargo	602	762	686	1,019	1,151	1,061
	Ballast	381	483	497	54	55	79
Other Commonwealth Countries	Cargo	2,507	2,341	2,392	1,796	1,772	1,943
	Ballast	421	157	369	791	828	835
Arabian States	Cargo	1,352	1,730	1,684	85	83	27
	Ballast	13	23	20	1,718	2,148	2,269
Indonesia	Cargo	918	1,043	1,091	183	140	112
	Ballast	203	140	120	794	792	896
Iran	Cargo	976	991	1,190	58	21	23
	Ballast	16	34	7	383	218	241
Japan	Cargo	376	494	555	716	847	893
	Ballast	453	441	390	25	6	25
United States of America	Cargo	558	627	674	473	577	590
	Ballast	3	14	4	28	36	17
Other Foreign Countries	Cargo	1,255	1,328	1,421	1,421	1,328	1,773
	Ballast	196	87	140	171	171	170
Total	Cargo	10,112	10,970	11,349	7,871	7,873	8,501
	Ballast	1,703	1,414	1,598	3,974	4,258	4,571
Total, Cargo and Ballast ..	..	11,815	12,384	12,947	11,845	12,131	13,072

4. **Country of Registration of Oversea Shipping.**—Vessels registered at ports in Commonwealth countries accounted for 51.3 per cent. of the net tonnage of shipping entering Australian ports in 1958-59. This proportion has varied considerably since the end of the 1939-45 War. By 1946-47, the proportion had increased from the low level of 43.4 per cent. recorded in 1943-44 to 76.2 per cent., but since then has steadily declined.

Particulars of oversea shipping which entered Australian ports during each of the years 1956-57 to 1958-59 are given in the following table according to country of registration of vessels.

**OVERSEA SHIPPING: COUNTRY OF REGISTRATION OF VESSELS
ENTERED, AUSTRALIA.
(’000 Net Tons.)**

Vessels Registered at Ports in—	1956- 57.	1957- 58.	1958- 59.	Vessels Registered at Ports in—	1956- 57.	1957- 58.	1958- 59.
<i>Commonwealth Countries—</i>				<i>Foreign Countries—</i>			
Australia ..	281	360	382	<i>continued—</i>			
New Zealand ..	462	503	425	Norway ..	1,397	1,459	1,626
United Kingdom ..	5,680	5,242	5,393	Panama ..	507	558	404
Other ..	377	467	438	Sweden ..	332	384	510
				U.S.A. ..	312	385	355
				Other ..	373	421	680
In Cargo ..	5,747	5,738	5,767				
In Ballast ..	1,053	834	871	In Cargo ..	4,365	5,232	5,582
				In Ballast ..	650	580	727
<i>Total Commonwealth Countries</i>	<i>6,800</i>	<i>6,572</i>	<i>6,638</i>	<i>Total Foreign Countries</i>	<i>5,015</i>	<i>5,812</i>	<i>6,309</i>
<i>Proportion of total</i>	<i>57.6</i>	<i>53.1</i>	<i>51.3</i>	<i>Proportion of total</i>	<i>42.4</i>	<i>46.9</i>	<i>48.7</i>
<i>Foreign Countries—</i>				<i>All Countries—</i>			
Denmark ..	240	325	282	In Cargo ..	10,112	10,970	11,349
France(a) ..	206	314	327	Proportion of total %	85.6	88.6	87.7
Germany(b) ..	94	140	120	In Ballast ..	1,703	1,414	1,598
Italy ..	464	553	505	Proportion of total %	14.4	11.4	12.3
Japan ..	420	661	752				
Netherlands ..	670	612	748	Grand Total ..	11,815	12,384	12,947

(a) Includes New Caledonia.

(b) Federal Republic.

The Australian tonnage which entered Australian ports from overseas during the year 1958–59 represented 3.0 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

The proportion of overseas shipping tonnage which entered Australia in cargo fell from 88.9 per cent. in 1938–39 to 79.4 per cent. in 1947–48. In 1958–59 it was 87.7 per cent. However, the proportion of shipping which cleared in cargo declined from 87.6 per cent. in 1938–39 to 65.0 per cent. in 1958–59, the trend over the period being generally downward.

§ 4. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (a) Vessels engaged solely in interstate trade; and (b) Vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (However, these vessels, except under special circumstances, do not engage in interstate carrying. Numerous overseas vessels obtain single voyage permits or exemptions under the Navigation Act. Such vessels include overseas tankers carrying petroleum products interstate, and, since the withdrawal of interstate passenger liners, other overseas vessels, under permit, carrying passengers and frozen cargo on the interstate run). No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom “Overseas via States”, thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom “Overseas via States”. On an inward voyage, the clearance from the first State to the second State is a clearance interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “Overseas via States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be seen more clearly

from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—via South Australia and Victoria. From the terminal port the vessel will commence the outward voyage and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON THE AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
Inward Voyage—		
Enters Fremantle from United Kingdom	Oversea direct	Interstate direct
Clears Fremantle for Adelaide		
Enters Adelaide from United Kingdom via Fremantle		Oversea via States
Clears Adelaide for Melbourne		Interstate direct
Enters Melbourne from United Kingdom via Adelaide		
Clears Melbourne for Sydney		Oversea via States
Enters Sydney from United Kingdom via Melbourne		Oversea via States
Outward Voyage—		
Clears Sydney for United Kingdom via Melbourne	Oversea direct	Oversea via States
Enters Melbourne from Sydney		Interstate direct
Clears Melbourne for United Kingdom via Adelaide		
Enters Adelaide from Melbourne		Oversea via States
Clears Adelaide for United Kingdom via Fremantle		Interstate direct
Enters Fremantle from Adelaide		
Clears Fremantle for United Kingdom ..		Oversea via States

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as "Oversea direct" gives the overseas shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total *oversea shipping* for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct", to furnish figures showing the total *interstate movement* of shipping.

However, it should be remembered that all overseas vessels do not follow the same itinerary as the vessel in the table above.

2. *Interstate Movement.*—(i) *Interstate Direct.* The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels on interstate direct voyages) during each of the years 1956–57 to 1958–59.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES OF VESSELS INTERSTATE DIRECT.

State or Territory.	Number.			Net Tons ('000).		
	1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
New South Wales	1,711	1,861	1,865	4,853	5,119	5,172
Victoria	1,594	1,673	1,729	4,128	4,231	4,639
Queensland	688	690	701	1,806	1,766	1,853
South Australia	1,088	1,079	1,066	3,876	3,767	3,575
Western Australia	526	548	525	2,590	2,604	2,509
Tasmania	1,025	1,104	1,068	1,203	1,267	1,115
Northern Territory	45	47	54	93	86	82
Australia	6,677	7,002	7,008	18,549	18,840	18,945

(ii) *Oversea via States.* To ascertain the aggregate movement of shipping between the States, including the total interstate movement of overseas vessels, the figures in the following table, which show the number of entrances and clearances of vessels to and from overseas countries via other Australian States and the aggregate tonnage, must be added to those in the preceding table.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS OVERSEA VIA OTHER AUSTRALIAN STATES, 1958-59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances No.	669	746	371	471	39	138	4	2,438
'000 net tons	3,367	3,740	1,661	2,337	206	671	5	11,987
Clearances No.	660	684	266	439	39	184	6	2,278
'000 net tons	3,115	3,507	1,142	2,144	196	842	15	10,961

Overseas vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their overseas voyages.

(iii) *Total, Australia.* The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for each of the years 1954-55 to 1958-59.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Entrances .. No.	8,300	8,362	8,505	9,093	9,446
'000 net tons	28,515	28,868	27,962	29,464	30,932
Clearances .. No.	8,151	8,460	8,480	9,093	9,425
'000 net tons	28,292	29,095	27,763	29,553	30,842

(iv) *Total, States.* The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1958-59, together with the aggregate net tonnage.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL, 1958-59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances No.	2,534	2,475	1,072	1,537	564	1,206	58	9,446
'000 net tons	8,539	8,379	3,514	5,912	2,715	1,786	87	30,932
Clearances No.	2,622	2,487	933	1,529	570	1,229	55	9,425
'000 net tons	8,848	8,413	2,739	5,927	2,974	1,858	83	30,842

3. *Shipping Engaged Solely in Interstate Trade.*—The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade during the year 1958-59, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, 1958-59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Ships entered ..	1,386	1,227	429	795	185	946	44	5,012
Net tons .. '000	3,219	2,008	691	2,207	607	742	57	9,531

4. *Interstate and Coastal Shipping Services.*—The following table shows particulars, so far as they are available, of all vessels engaged in the regular interstate or coastal services at the end of each of the years 1955 to 1959:—

INTERSTATE AND COASTAL SHIPPING SERVICES: AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
Number of companies operating ..	41	41	41	48	49
Number of vessels	185	174	178	196	182
Tonnage { Gross	522,326	511,534	544,842	536,666	512,703
Net	283,771	275,337	292,110	282,651	272,488
Horse-power (Nominal) ..	50,455	48,667	51,498	56,265	53,432
Number of passengers for which licensed(a) { 1st class	1,966	1,777	1,787	1,799	1,525
2nd class and steerage ..	648	526	523	428	350
Complement of Masters and officers ..	709	682	702	713	689
Crew { Engineers	795	776	805	770	740
Other	4,853	4,563	4,552	4,375	3,980

(a) Excludes purely day-passenger accommodation.

NOTE.—This table excludes particulars of a small number of chartered vessels for which returns could not be obtained.

§ 5. Shipping at Principal Ports.

1. *Total Shipping, Australia.*—The following table shows the total volume of shipping—oversea, interstate and coastwise—which entered the principal ports of Australia during the years 1957-58 and 1958-59. Warships are excluded from the table.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1957-58.		1958-59.		Port of Entry.	1957-58.		1958-59.	
	Num-ber.	Net Tons.	Num-ber.	Net Tons.		Num-ber.	Net Tons.	Num-ber.	Net Tons.
		'000.		'000.			'000.		'000.
<i>New South Wales—</i>					<i>South Australia—</i>				
Sydney(a) ..	4,433	11,318	4,593	12,129	Adelaide ..	2,671	5,273	2,751	5,448
Newcastle ..	2,441	4,336	2,425	4,530	Port Lincoln ..	432	401	439	452
Port Kembla ..	683	2,068	736	2,260	Port Pirie ..	430	874	420	915
					Rapid Bay ..	152	234	143	224
					Wallaroo ..	105	171	116	181
					Whyalla ..	447	1,429	427	1,382
<i>Victoria—</i>					<i>Western Australia—</i>				
Melbourne ..	2,583	9,148	2,686	9,599	Fremantle(b) ..	1,121	5,962	1,182	6,069
Geelong ..	454	1,923	486	2,389	Albany ..	124	487	118	484
					Bunbury ..	85	244	111	347
					Carnarvon ..	93	145	92	141
					Geraldton ..	118	320	106	295
					Yampi ..	152	284	130	319
<i>Queensland—</i>					<i>Tasmania—</i>				
Brisbane ..	1,217	3,755	1,358	4,289	Hobart ..	471	1,037	479	1,116
Bowen ..	59	186	63	215	Burnie ..	273	422	298	504
Cairns ..	260	563	314	631	Devonport ..	257	235	257	230
Gladstone ..	95	318	125	351	Launceston ..	523	556	519	608
Mackay ..	87	269	113	299					
Rockhampton ..	101	221	129	333	<i>Northern Territory—</i>				
Townsville ..	347	1,029	339	1,019	Darwin ..	77	127	84	153

(a) Includes Botany Bay.

(b) Includes Kwinana.

2. **Total Shipping—Australia, New Zealand and the United Kingdom.**—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1958–59 and of New Zealand and the United Kingdom during 1958.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

('000 Net Tons.)

Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.
AUSTRALIA —		NEW ZEALAND—		ENGLAND AND WALES—	
Sydney (N.S.W.) ..	12,129	Wellington ..	4,214	<i>continued.</i>	
Melbourne (Vic.) ..	9,599	Auckland ..	3,825	Tyne Ports ..	7,679
Fremantle (W.A.) ..	6,069	Lyttleton ..	2,887	Hull ..	5,797
Adelaide (S.A.) ..	5,448	Dunedin ..	1,247	Bristol ..	5,756
Newcastle (N.S.W.) ..	4,530	Napier ..	777	Dover ..	5,270
Brisbane (Qld.) ..	4,289	New Plymouth ..	610	Swansea ..	4,956
Geelong (Vic.) ..	2,389	Bluff ..	538	Middlesbrough ..	4,774
Port Kembla (N.S.W.) ..	2,260	ENGLAND AND WALES—		Cardiff ..	3,478
Whyalla (S.A.) ..	1,382	London ..	39,224	SCOTLAND—	
Hobart (Tas.) ..	1,116	Southampton ..	23,365	Glasgow ..	7,563
Townsville (Qld.) ..	1,019	Liverpool (including Birkenhead) ..	18,635	NORTHERN IRELAND—	
Port Pirie (S.A.) ..	915	Manchester (including Runcorn) ..	7,938	Belfast ..	7,251
Cairns (Qld.) ..	631				
Launceston (Tas.) ..	608				

§ 6. Shipping Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea and interstate cargo discharged and shipped at Australian ports for the years 1954–55 to 1958–59. Most of the cargo is recorded in terms of the ton weight of 2,240 lb., the remainder, mainly bulky commodities, being shipped and recorded on the basis of 40 cubic feet of space occupied representing 1 ton measurement.

SHIPPING CARGO MOVEMENT: AUSTRALIA.

('000 Tons.)

Year.	Oversea Cargo.				Interstate Cargo.			
	Discharged.		Shipped.		Discharged.		Shipped.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
1954–55 ..	10,992	3,403	6,084	1,420	10,136	1,621	10,212	1,472
1955–56 ..	12,431	3,421	6,666	1,546	11,184	1,572	11,632	1,315
1956–57 ..	12,596	2,752	8,734	1,378	11,862	1,285	11,899	1,290
1957–58 ..	13,719	2,914	7,366	1,489	12,621	1,335	12,614	1,157
1958–59 ..	14,232	2,666	8,646	1,469	12,236	1,288	12,345	1,047

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at the principal ports of Australia during 1958-59.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1958-59.

('000 Tons.)

Port.	Discharged.				Shipped.			
	Oversea.		Interstate.		Oversea.		Interstate.	
	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.
Sydney	4,492	1,069	657	236	867	345	833	217
Newcastle	258	..	2,132	..	642	..	2,482	..
Port Kembla	304	..	2,454	..	399	..	687	..
Other .. .. .	..	..	..	..	31	9	1	..
<i>Total, New South Wales</i> ..	<i>5,054</i>	<i>1,069</i>	<i>5,243</i>	<i>236</i>	<i>1,939</i>	<i>354</i>	<i>4,003</i>	<i>217</i>
Melbourne	2,519	923	2,281	342	723	528	436	382
Geelong	2,349	58	449	..	882	..	675	..
Portland	56	..	10	..	14	..	..	..
<i>Total, Victoria</i>	<i>4,924</i>	<i>981</i>	<i>2,740</i>	<i>342</i>	<i>1,619</i>	<i>528</i>	<i>1,111</i>	<i>382</i>
Brisbane	293	188	788	115	644	92	35	37
Cairns	53	1	68	17	242	10	64	7
Gladstone	27	..	53	..	72	3	35	2
Mackay	9	..	52	..	331	..	35	..
Townsville	39	..	115	29	290	3	59	2
Other	2	1	21	11	147	9	382	2
<i>Total, Queensland</i> ..	<i>423</i>	<i>190</i>	<i>1,097</i>	<i>172</i>	<i>1,726</i>	<i>117</i>	<i>610</i>	<i>50</i>
Port Adelaide	358	258	1,583	114	423	132	185	66
Adrossan .. .. .	..	..	..	..	96	..	63	3
Port Lincoln	40	2	30	1	186	..	18	..
Port Pirie	10	..	210	..	422	..	266	..
Rapid Bay .. .. .	..	..	..	..	..	..	369	..
Whyalla .. .. .	..	..	257	..	9	..	3,176	..
Other	44	2	1	..	360	9	217	..
<i>Total, South Australia</i> ..	<i>452</i>	<i>262</i>	<i>2,081</i>	<i>115</i>	<i>1,496</i>	<i>141</i>	<i>4,294</i>	<i>69</i>
Fremantle	2,845	129	296	170	1,179	92	1,089	34
Bunbury	74	..	2	..	165	61	21	15
Geraldton	68	..	..	..	207	5	25	..
Yampi .. .. .	..	..	2	..	..	..	571	..
Other	97	2	30	5	182	28	19	6
<i>Total, Western Australia</i> ..	<i>3,084</i>	<i>131</i>	<i>330</i>	<i>175</i>	<i>1,733</i>	<i>186</i>	<i>1,725</i>	<i>55</i>
Hobart	124	21	408	146	60	133	238	89
Burnie	31	1	57	37	29	..	49	136
Launceston	84	1	149	14	32	2	141	7
Other	5	10	77	48	6	4	171	41
<i>Total, Tasmania</i>	<i>244</i>	<i>33</i>	<i>691</i>	<i>245</i>	<i>127</i>	<i>139</i>	<i>599</i>	<i>273</i>
Darwin, Northern Territory ..	51	..	54	3	6	4	3	1
<i>Australia</i>	<i>14,232</i>	<i>2,666</i>	<i>12,236</i>	<i>1,288</i>	<i>8,646</i>	<i>1,469</i>	<i>12,345</i>	<i>1,047</i>

2. **Oversea Cargo according to Country of Registration of Vessels.**—The following table shows the total oversea cargo, discharged and shipped combined, according to the countries in which the vessels were registered, during each of the years 1956–57 to 1958–59:—

OVERSEA CARGO DISCHARGED AND SHIPPED: COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA.

(’000 Tons.)

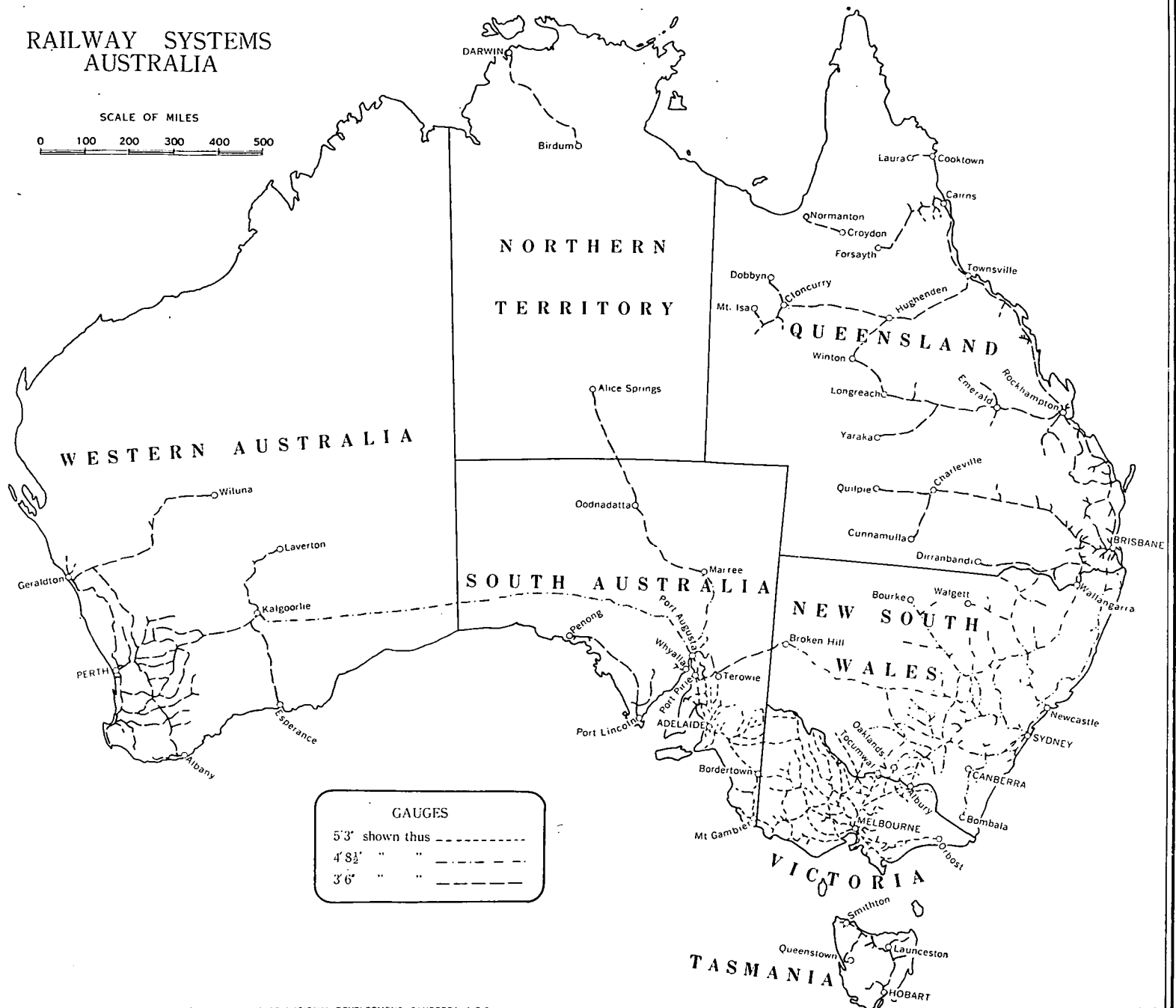
Vessels Registered at Ports in—	1956–57.		1957–58.		1958–59.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
Commonwealth Countries—						
Australia	366	101	387	94	363	92
Hong Kong	350	37	241	40	213	40
New Zealand	567	388	593	407	540	327
United Kingdom	9,761	2,352	7,933	2,488	8,758	2,253
Other	421	130	558	163	456	182
Total, Commonwealth Countries	11,465	3,008	9,712	3,192	10,330	2,894
Proportion of Total %	53.8	72.8	46.1	72.5	45.2	70.0
Foreign Countries—						
Denmark	545	34	785	30	708	38
France and New Caledonia	182	40	343	37	580	55
Germany, Federal Republic of	277	106	263	91	323	81
Italy	499	51	509	68	439	59
Japan	839	53	1,251	102	1,587	131
Netherlands	1,069	214	1,025	238	1,136	260
Norway	3,336	194	3,734	217	3,912	207
Panama	1,105	..	1,249	21	865	12
Sweden	844	174	798	164	1,218	186
United States of America	296	209	288	196	244	191
Other	873	47	1,128	47	1,536	21
Total, Foreign Countries	9,865	1,122	11,373	1,211	12,548	1,241
Proportion of Total %	46.2	27.2	53.9	27.5	54.8	30.0
Grand Total	21,330	4,130	21,085	4,403	22,878	4,135

§ 7. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built and registered in Australia during each of the calendar years 1955 to 1959, so far as such information can be ascertained from the Shipping Registers of the various States. However, the Merchant Shipping Act, under which vessels are registered in Australia, does not make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

RAILWAY SYSTEMS AUSTRALIA

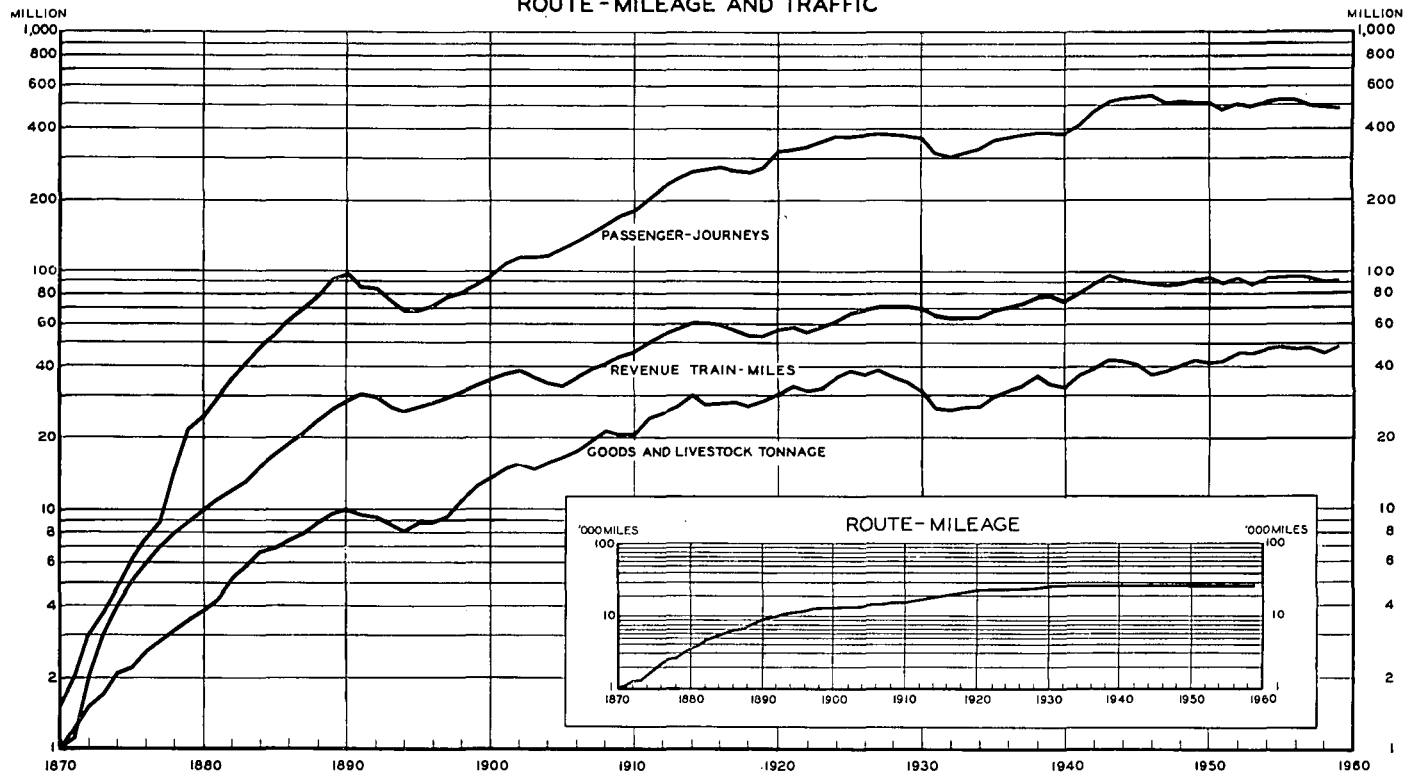
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GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1959

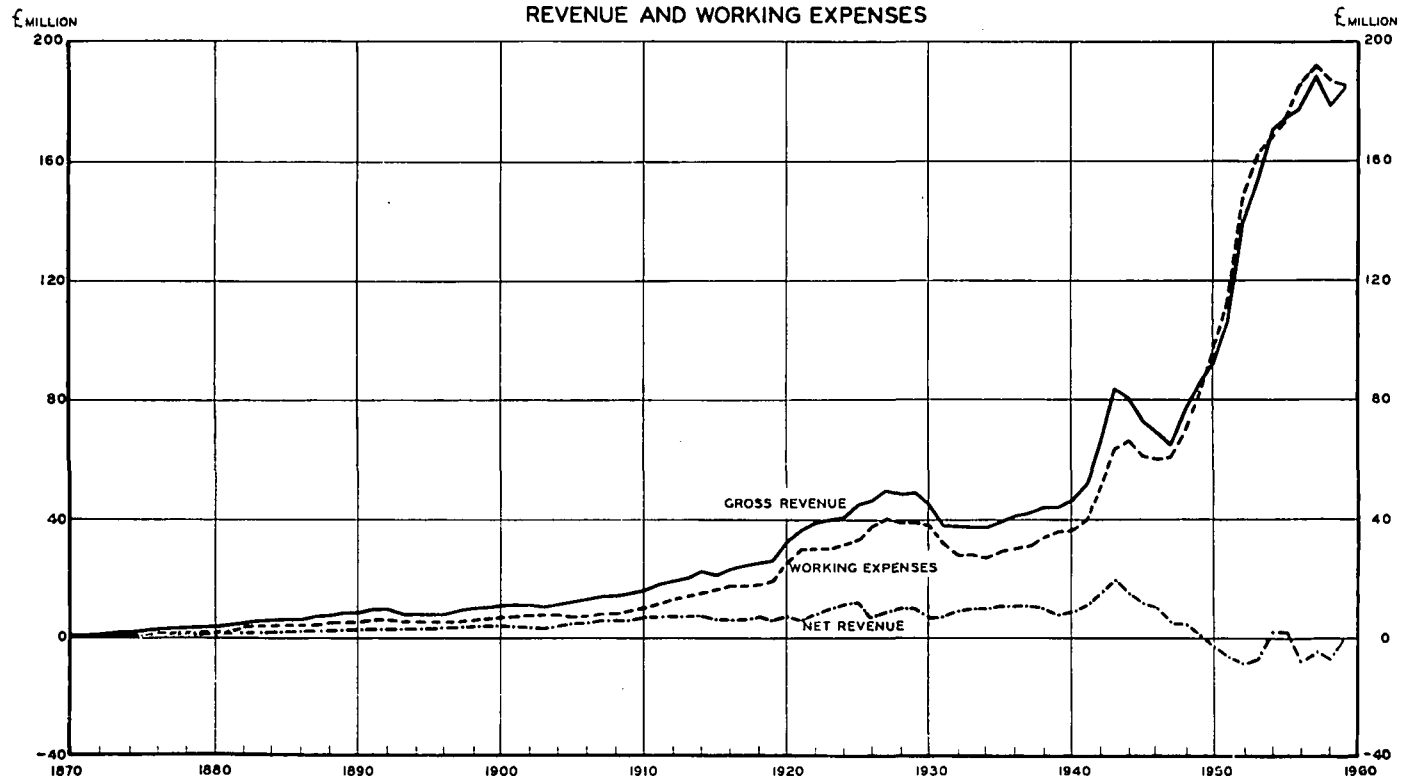
RATIO GRAPH

ROUTE - MILEAGE AND TRAFFIC



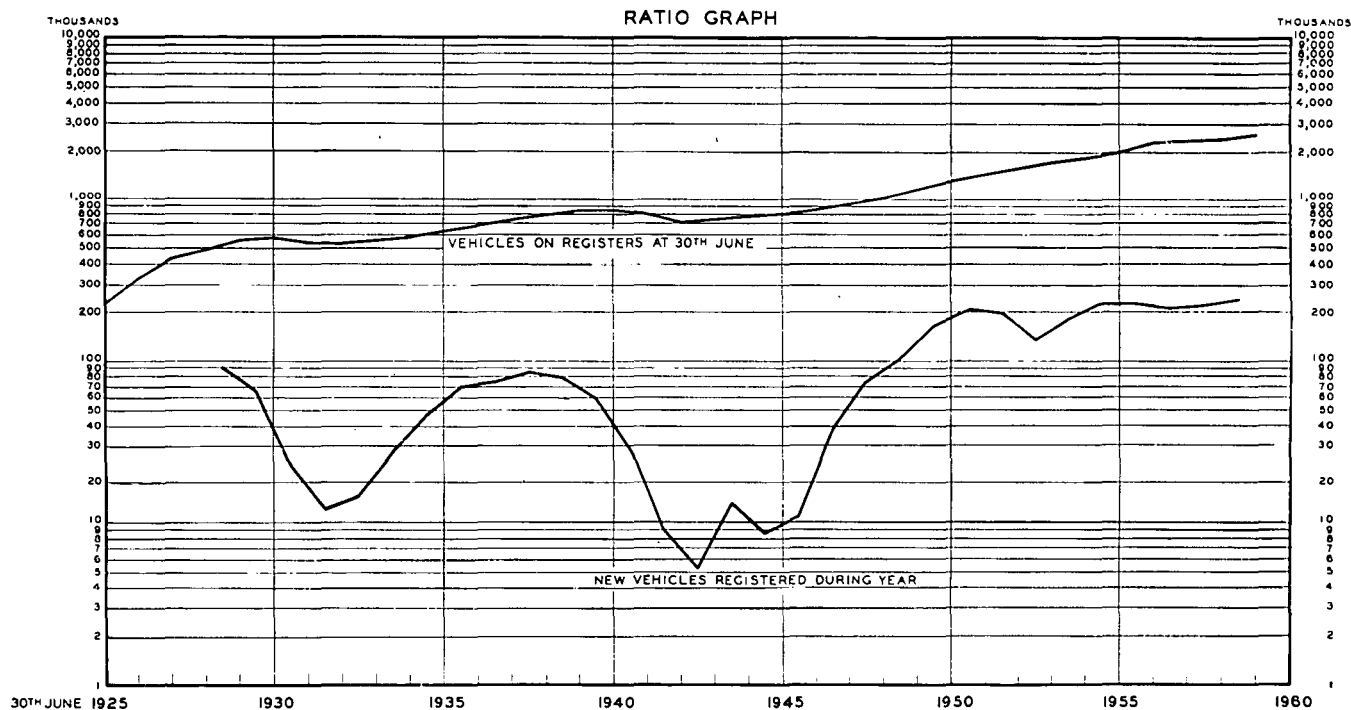
NOTE:— VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1959



MOTOR VEHICLE REGISTRATIONS: AUSTRALIA, 1925 TO 1959

(EXCLUDING MOTOR CYCLES)



NOTE:-VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE

VESSELS BUILT AND REGISTERED IN AUSTRALIA.

Year.	Steam.			Motor.(a)			Sailing.			Total.		
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.	
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.
1955 ..	2	3,905	1,903	9	185	156	2	9	9	13	4,099	2,068
1956 ..	1	7,583	4,203	22	14,552	8,432	1	3	3	24	22,138	12,638
1957 ..	2	15,166	8,202	25	19,211	11,164	..	..	..	27	34,377	19,366
1958 ..	1	7,274	4,343	21	15,293	9,341	1	24	16	23	22,591	13,700
1959 ..	1	14,039	7,145	23	12,896	7,167	..	..	..	24	26,935	14,312

(a) Includes vessels with auxiliary motors.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State and the Northern Territory at 31st December, 1959:—

VESSELS REGISTERED, 31st DECEMBER, 1959.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
			Propelled by Sail only.		Fitted with Auxiliary Power.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales ..	291	56,313	27	2,124	103	1,338	10	948	431	60,723
Victoria ..	182	177,678	48	574	61	1,581	27	9,318	318	189,151
Queensland ..	90	36,793	31	843	46	518	4	830	171	38,984
South Australia ..	77	33,650	10	192	53	2,362	30	4,263	170	40,467
Western Australia ..	97	11,885	207	3,097	81	1,885	5	478	390	17,345
Tasmania ..	49	12,554	43	718	100	2,463	3	690	195	16,425
Northern Territory ..	..	..	16	154	8	151	..	..	24	305
Australia ..	786	328,873	382	7,702	452	10,298	79	16,527	1,699	363,400

3. **World Shipping Tonnage.**—At 1st July, 1959, the total steamships, motorships and auxiliaries of 100 gross tons and upwards throughout the world amounted to 36,221, with a gross tonnage of 124,935,000. Of these totals, steamships numbered 15,496 for 73,749,000 gross tons, motorships 19,830 for 51,009,000 gross tons and auxiliaries 895 for 177,000 gross tons. Included therein were 4,341 oil tankers of 100 gross tons and upwards, with a gross tonnage of 37,890,000. Australian steamships, motorships and auxiliaries, 351 for 664,000 gross tons, constituted 0.97 per cent. and 0.53 per cent. respectively of the total number and tonnage. There was one Australian oil tanker of 12,624 gross tons registered. This information has been derived from *Lloyd's Register of Shipping*.

§ 8. Miscellaneous.

1. **Lighthouses.**—A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

2. **Distances by Sea.**—The distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia are published in the annual bulletin, *Transport and Communication*.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* shows a list of the ruling freight rates for general merchandise in respect of both overseas and interstate shipments. At 31st December, 1959, the rate for general merchandise from Australia to the United Kingdom and the Continent was 204s. per ton weight or measurement, while

the rates for wheat and wool (greasy) were respectively £5 per ton weight and 3.39d. less 7 per cent. per lb. These rates, which are expressed in sterling, are subject to an adjustment of 25½ per cent. when freight is prepaid in Australia.

4. **Depth of Water at Main Ports.**—A table showing the depth of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*.

5. **Shipping Losses and Casualties.**—Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1955 to 1959 are shown in the table below.

SHIPPING LOSSES AND CASUALTIES: AUSTRALIA.

Year.	Shipping Losses.			Other Shipping Casualties.			Total Shipping Casualties.		
	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.
1955 ..	1	53	..	220	694,847	..	221	694,900	..
1956 ..	2	529	18	237	771,418	..	239	771,947	18
1957 ..	1	249	..	224	709,432	..	225	709,681	..
1958 ..	1	98	5	179	525,528	..	180	525,626	5
1959 ..	2	346	1	200	623,475	9	202	623,821	10

6. **Commonwealth Navigation and Shipping Legislation.**—By section 51 (i) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws in respect of trade and commerce with other countries and among the States. By section 98, the power in this particular respect is further defined as extending to navigation and shipping.

A review of the introduction and development of the Navigation Act 1912–1950 was given in Official Year Book No. 40, pages 110–2. Amendments to the Principal Act were made by the Navigation Acts of 1952, 1953, 1956 and 1958.

Other shipping Acts under the trade and commerce power of the Commonwealth are the Sea-Carriage of Goods Act 1924, the Seamen's Compensation Act 1911–1954, and the Seamen's War Pensions and Allowances Act 1940–1958.

7. **Ports and Harbours.**—A report on "The Turn-round of Ships in Australian Ports" was submitted to the Commonwealth Government by Henry Basten, C.M.G., on 4th January, 1952. The report deals with all factors affecting the turn-round of ships and congestion in Australian ports and the measures that might be taken to effect improvement on both short-term and long-term bases. Further information on ports and harbours will be found in Chapter XIX.—Local Government.

B. GOVERNMENT RAILWAYS.

1. **General.**—The first steam-operated railway in Australia, between Melbourne and Port Melbourne, a distance of 2 miles, was opened on 12th September, 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway Company. In the next 100 years the mileage increased greatly and at 30th June, 1954, 26,624 route-miles (excluding several hundred miles of privately-owned line) were open for traffic. However, the operation of Australia-wide services is greatly hampered by the presence of many break-of-gauge stations, necessitated by the several gauges at present in use. The policy of government ownership and control of railways has been adopted in each State and at 30th June, 1959, 24,079 route-miles were owned by the State Governments and 2,252 route-miles by the Commonwealth Government. In the following tables details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line and more detailed statistics for all lines are shown in the annual bulletin, *Transport and Communication*.

In some States, there are comparatively small privately-owned railway systems offering passenger and freight services to the public. Details of these private railways were included in Official Year Book No. 39 and previous issues, but owing to their relative unimportance and the incomplete nature of the statistics available, the series has been discontinued.

2. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 was given in Official Year Book No. 6, page 681, and in No. 22, page 259. The main ports on the mainland are connected by lines running approximately parallel to the coast and are the focal points of lines which radiate inland to the agricultural, mining and pastoral areas of the continent to a distance of up to 600 miles at some points. However, Darwin in the Northern Territory is not connected by rail to any other port. A 3 ft. 6 in. gauge railway extends southward from Darwin to Birdum, a distance of 317 miles, and from Port Augusta in South Australia a 4 ft. 8½ in. gauge railway of 217 miles extends northwards to Marree and thence as a 3 ft. 6 in. gauge of 540 miles to Alice Springs.

In recent years, besides the construction of air-conditioned passenger trains and high-capacity goods rolling stock, many new locomotives have been built and others purchased. Also there has been a significant development of diesel-electric traction, the number of diesel-electric locomotives in service having risen from two at 30th June, 1949, to 402 at 30th June, 1959.

3. **Distances between Capital Cities.**—The distances by rail between the capital cities of Australia are published in the annual bulletin, *Transport and Communication*.

4. **Government Railways Development.**—In spite of the great extensions of State railways since 1875 and the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States was to extend the existing lines inland in the form of light railways as settlement increased, and while it is true that lines which were not likely to be commercially successful in the immediate future were constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting was kept in view.

The greatest recorded route-mileage of government railways was 27,234 at 30th June, 1941. Although short lengths of line have been opened since that date, most railway construction is being confined to the duplication and electrification of existing main lines. The closure of other lines (mainly developmental branch lines whose retention would have been uneconomic), especially in Victoria and Western Australia, has resulted in a considerable decrease in route-mileage. Variations in route-mileage in each State and Territory during the ten years ended 30th June, 1959, are shown in the following table:—

GOVERNMENT RAILWAYS: VARIATIONS IN ROUTE-MILEAGE, 1949 TO 1959.

State or Territory.	Route-mileage at 30th June, 1949.	Variations during Ten Years ended 30th June, 1959 due to—		Route-mileage at 30th June, 1959.
		Route Miles Opened.	Route Miles Closed.	
New South Wales	6,354	2	12	6,344
Victoria	4,452	14	374	4,092
Queensland	6,560	..	134	6,426
South Australia	3,799	235	198	3,836
Western Australia	4,775	16	220	4,571
Tasmania	614	2	49	567
Northern Territory	490	..	..	490
Australian Capital Territory	5	..	..	5
Australia	27,049	269	987	26,331

5. **Standardization of Railway Gauges.**—A summary of the report and recommendations relating to the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge, made in March, 1945, at the request of the Commonwealth Government by the late Sir Harold Clapp, together with an outline of the agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia regarding the standardization of railway gauges in their respective States, was published in Official Year Book No. 37, pages 146–9. The agreement, which was signed in 1946, was ratified by the Governments of the Commonwealth, of Victoria and of South Australia, but not by the New South Wales Government. After some time had elapsed and New South Wales had failed to ratify the agreement, the Commonwealth Government decided to enter into a separate agreement with South Australia, and the necessary legislation was enacted in 1949

by each Government concerned. The Commonwealth-South Australia Agreement provides for the same standardization work to be carried out in South Australia as would have been carried out had New South Wales ratified the original Commonwealth-Three States Agreement, and that over a period of years the Commonwealth should contribute 70 per cent. and South Australia be responsible for the remaining 30 per cent. of the estimated cost.

As a further step towards standardization, a Committee consisting of members of the Federal Parliament was formed in March, 1956, to ascertain whether a scheme confined to the main trunk routes would be desirable. This Committee recommended in October, 1956, that standard gauge (4 ft. 8½ in.) lines be provided from Wodonga to Melbourne, from Broken Hill to Adelaide via Port Pirie and from Kalgoorlie to Fremantle via Perth. Action to implement these recommendations has been commenced in respect of the Wodonga to Melbourne line. This project envisages the construction of a new 4 ft. 8½ in. track alongside the present 5 ft. 3 in. single track between Wodonga and Mangalore, the conversion of one of the two existing tracks between Mangalore and Albion and a combination of new track and conversion of existing track between Albion and Spencer Street station.

Preparatory work in the field on the uniform gauge between Albury and Melbourne commenced in November, 1957. The work has been concerned with the duplication of bridges, extension of culverts and the establishment of camps. Funds for this project are being advanced by the Commonwealth to enable the work to proceed. An agreement was reached between the Commonwealth and the two States, New South Wales and Victoria, whereby the Commonwealth will meet 70 per cent. of the cost of unification and the two states will share equally the remaining 30 per cent. with the Commonwealth advancing the whole of the necessary funds initially and the States' portion, plus interest, being repayable over 50 years. Legislation was enacted by the Commonwealth and the two State Governments in three separate Acts assented to towards the close of 1958. Estimated total cost is about £10.7 million, just over £2 million having been spent to 30th June, 1959.

A map showing the railway systems of Australia according to gauge appears on page 523.

6. Grafton-South Brisbane Uniform Gauge Line.—The first step towards uniform gauge railway communication between the capitals of the mainland States was effected in 1930 with the construction of the 4 ft. 8½ in. gauge line from Grafton to South Brisbane. The finance required for the construction was provided by the Commonwealth Government. For details of the agreement between the Commonwealth and New South Wales and Queensland, see Official Year Book No. 31, page 122.

This line is operated by the New South Wales Railways and details of operations in New South Wales are included with those of the New South Wales system. Details of operations on the Queensland portion are included with Queensland railway statistics unless otherwise specified.

7. Mileage Open for Traffic, all Lines.—Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The following table shows the route-mileage of Commonwealth and State lines open in each State and Territory at various periods since the inauguration of railways in Australia in 1854:—

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN.
(Miles.)

At 30th June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a) ..	14	2	..	7	..	..	..	..	23
1861(a) ..	73	114	..	56	..	..	..	..	243
1871(a) ..	358	276	218	133	..	45	..	..	1,030
1881(a) ..	996	1,247	800	832	92	45	..	..	4,012
1891 ..	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901 ..	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911 ..	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921 ..	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931 ..	6,247	4,514	6,529	3,898	4,634	665	317	5	26,809
1941 ..	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951 ..	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1959 ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331

(a) At 31st December.

At 30th June, 1959, 256 route-miles in Victoria and 228 route-miles in New South Wales were electrified.

The next table shows for each State and Territory the length of government lines open in relation to both population and area at 30th June, 1959.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN AT 30th JUNE, 1959.
(Miles.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-mileage open ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331
Per 1,000 of population..	1.69	1.45	4.46	4.17	6.36	1.66	23.40	0.11	2.62
Per 1,000 square miles ..	20.50	46.56	9.63	10.09	4.68	21.63	0.94	5.32	8.86

8. **Classification of Lines according to Gauge, at 30th June, 1959.**—The next table shows the route-mileage of government railways open in each State and Territory at 30th June, 1959, classified according to gauge.

GOVERNMENT RAILWAYS: GAUGES, AT 30th JUNE, 1959.
(Route-miles.)

Gauge.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in. ..	(a) 241	4,058	..	1,674	..	..	..	..	5,973
4 ft. 8½ in. ..	6,103	..	(b) 69	(c) 871	(c) 454	..	..	(c) 5	7,502
3 ft. 6 in. ..	..	..	6,327	(d) 1,291	4,117	567	(c) 490	..	12,792
2 ft. 6 in. ..	..	34	..	..	..	..	..	..	34
2 ft. 0 in. ..	..	..	30	..	..	..	..	..	30
Total ..	6,344	4,092	6,426	3,836	4,571	567	490	5	26,331

(a) Portion of Victorian system. (b) Queensland section of Grafton-South Brisbane Uniform Gauge Line. (c) Portion of Commonwealth system. (d) Includes 432 miles of Commonwealth system.

9. **Summary of Operations.**—In the following table a summary is shown of the operations of government railways open in Australia during 1958–59:—

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1958-59.

Particulars.	Commonwealth Railways.	State Railways.	Total.
Route-mileage, 30th June miles	2,252	24,079	26,331
Gross earnings £'000	5,584	179,328	184,912
„ „ per revenue train-mile pence	664	482	486
Working expenses £'000	(a) 3,647	181,349	184,996
„ „ per revenue train-mile pence	434	488	486
Net earnings £'000	(a) 1,937	—2,021	—84
„ „ per revenue train-mile pence	230	—5	—0.22
Revenue train-miles '000	2,018	89,267	91,285
Passenger-journeys '000	259	484,759	485,018
Goods and livestock carried '000 tons	1,405	46,626	48,031
Average number of employees(b)	2,633	135,829	138,462
„ earnings per employee £	997	981	982

(a) Excludes amounts paid for Commissioner's salary, government contributions under the Superannuation Act, Accident and Insurance Fund and proportion of salaries of Auditor-General's staff—total, £110,192. (b) Excludes construction staff except in respect of Victoria.

NOTE.—Minus sign (—) denotes loss.

A graph showing the route-mileage and traffic of government railways from 1870 to 1958–59 appears on page 524.

10. **Summary, States.**—The following table shows, for government railways in Australia, particulars of the mileage open, passengers and goods carried and revenue train-miles run during 1958–59.

GOVERNMENT RAILWAYS: SUMMARY, STATES, 1958–59.

Railway System.	Mileage Open.(a)		Passenger-journeys. (‘000.)	Goods and Livestock Carried. (‘000 tons.)	Revenue Train-miles. (‘000.)
	Route-miles.	Track-miles.			
New South Wales	6,103	8,488	254,055	19,700	35,195
Victoria	4,333	5,737	163,483	9,295	18,426
Queensland	6,426	7,474	33,457	8,373	19,509
South Australia	2,533	3,158	16,805	4,207	6,890
Western Australia	4,117	4,719	14,615	3,913	7,708
Tasmania	567	665	2,344	1,138	1,539
Commonwealth	2,252	2,452	259	1,405	2,018
Australia	26,331	32,693	485,018	48,031	91,285

(a) At 30th June.

11. **Gross Earnings.**—(i) *General.* Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. State Government grants are excluded. Details of these grants made during 1958–59 are shown in para. 14, page 535.

(ii) *Coaching, Goods and Miscellaneous Earnings.* (a) *Summary.* In the following table gross earnings are shown for the years 1956–57 to 1958–59, together with earnings per average route-mile worked and per revenue train-mile:—

GOVERNMENT RAILWAYS: GROSS EARNINGS.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
GROSS EARNINGS. (£'000.)								
1956–57 ..	78,689	37,352	36,678	13,770	13,859	2,534	4,962	187,844
1957–58 ..	74,433	35,954	34,636	13,160	12,788	2,569	5,346	178,886
1958–59 ..	75,930	38,150	36,169	12,856	13,516	2,707	5,584	184,912

**GROSS EARNINGS PER AVERAGE ROUTE-MILE WORKED.
(£.)**

1956–57 ..	12,894	8,441	5,681	5,398	3,367	4,333	2,172	7,083
1957–58 ..	12,195	8,168	5,365	5,193	3,106	4,492	2,370	6,766
1958–59 ..	12,441	8,756	5,628	5,075	3,283	4,782	2,480	7,017

**GROSS EARNINGS PER REVENUE TRAIN-MILE.
(Pence.)**

1956–57 ..	509.99	483.42	438.94	459.80	401.80	328.00	557.51	474.12
1957–58 ..	510.11	470.15	436.78	446.05	418.89	393.28	671.57	475.49
1958–59 ..	517.78	496.89	444.96	447.80	420.87	421.99	663.99	486.15

(a) Excludes government grants; see para. 11 (i) above.

(b) *Distribution.* The following table shows gross earnings for the year 1958–59 classified according to the main three sources of earnings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS(a), 1958-59.

Railway System.	Gross Earnings. (£'000.)			Proportion of Total. (Per Cent.)		
	Coaching.	Goods and Livestock.	Miscellaneous.	Coaching.	Goods and Livestock.	Miscellaneous.
New South Wales ..	21,730	50,524	3,676	28.62	66.54	4.84
Victoria ..	13,364	22,126	2,660	35.03	58.00	6.97
Queensland ..	4,926	30,115	1,128	13.62	83.26	3.12
South Australia ..	1,952	10,054	850	15.18	78.21	6.61
Western Australia ..	1,545	11,243	728	11.43	83.18	5.39
Tasmania ..	193	2,426	88	7.11	89.65	3.24
Commonwealth ..	979	4,243	362	17.54	75.98	6.48
Australia ..	44,689	130,731	9,492	24.17	70.70	5.13

(a) Excludes government grants; see para. 11 (i) on p. 532.

12. Working Expenses.—(i) *General*. In order to make an adequate comparison of the working expenses as between the several States and Territories, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same system. When traffic is light, the proportion of working expenses to earnings is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in South Australia, Western Australia and Tasmania but exclude interest, sinking fund, exchange and certain other payments (see para. 14 following).

(ii) *Working Expenses*. The following table shows the total working expenses, the ratio of working expenses to gross earnings and working expenses per average route-mile worked and per revenue train-mile for the years 1956-57 to 1958-59.

GOVERNMENT RAILWAYS: WORKING EXPENSES.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Aust.
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TOTAL WORKING EXPENSES.
(£'000.)

1956-57 ..	75,352	39,118	37,790	15,977	17,076	3,447	3,597	192,357
1957-58 ..	72,534	38,174	36,894	15,953	16,091	3,218	3,611	186,475
1958-59 ..	71,102	38,119	37,504	15,102	16,307	3,215	3,647	184,996

RATIO OF WORKING EXPENSES TO GROSS EARNINGS.
(Per Cent.)

1956-57 ..	95.76	104.73	103.03	116.03	123.21	136.01	72.50	102.40
1957-58 ..	97.45	106.17	106.52	121.23	125.83	125.24	67.55	104.24
1958-59 ..	93.64	99.92	103.69	117.47	120.65	118.79	65.31	100.05

WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED.
(£.)

1956-57 ..	12,347	8,840	5,853	6,263	4,148	5,893	1,575	7,253
1957-58 ..	11,884	8,672	5,715	6,296	3,908	5,625	1,601	7,053
1958-59 ..	11,650	8,749	5,836	5,962	3,961	5,680	1,620	7,020

WORKING EXPENSES PER REVENUE TRAIN-MILE.
(Pence.)

1956-57 ..	488.36	506.28	452.24	533.49	495.07	446.12	404.20	485.52
1957-58 ..	497.09	499.18	465.25	540.73	527.06	492.53	453.67	495.67
1958-59 ..	484.85	496.49	461.38	526.04	507.78	501.28	433.68	486.37

(a) See para. 9, note (a), p. 531.

(iii) *Distribution.* The following table shows the total working expenses for the year 1958–59 classified according to the main four expenditure headings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES, 1958–59.
(£'000.)

Railway System.	Mainten- ance of Way and Works.	Motive Power.(a)	Traffic.	Other Charges.	Total Working Expenses.
New South Wales	12,739	28,369	17,237	12,757	71,102
Victoria	7,749	11,196	10,200	8,974	38,119
Queensland	9,832	17,444	8,119	2,109	37,504
South Australia(b)	3,174	6,794	3,493	1,641	15,102
Western Australia(b)	2,665	7,086	3,319	3,237	16,307
Tasmania(b)	838	1,232	707	438	3,215
Commonwealth(c)	1,308	1,196	810	333	3,647
Australia	38,305	73,317	43,885	29,489	184,996

(a) Includes maintenance of rolling stock.

(b) Includes provision of reserves for depreciation.

(c) See para. 9, note (a), p. 531.

13. *Net Earnings.*—The following table shows, for the years 1956–57 to 1958–59, net earnings, i.e., the excess of gross earnings over working expenses and the amount of such net earnings per average route-mile worked and per revenue train-mile.

GOVERNMENT RAILWAYS: NET EARNINGS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
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TOTAL NET EARNINGS.
(£'000.)

1956–57 ..	3,337	— 1,766	— 1,112	— 2,207	— 3,217	— 913	(a)1,365	— 4,513
1957–58 ..	1,899	— 2,220	— 2,258	— 2,793	— 3,303	— 649	(a)1,735	— 7,589
1958–59 ..	4,828	31	— 1,335	— 2,246	— 2,791	— 508	(a)1,937	— 84

NET EARNINGS PER AVERAGE ROUTE-MILE WORKED.
(£.)

1956–57 ..	547	— 399	— 172	— 865	— 781	— 1,560	(a) 597	— 170
1957–58 ..	311	— 504	— 350	— 1,103	— 802	— 1,133	(a) 769	— 287
1958–59 ..	791	7	— 208	— 887	— 678	— 898	(a) 860	— 3

NET EARNINGS PER REVENUE TRAIN-MILE.
(Pence.)

1956–57 ..	21.63	—22.86	—13.30	—73.69	— 93.27	—118.12	(a)153.31	—11.39
1957–58 ..	13.02	—29.03	—28.47	—94.68	—108.17	— 99.25	(a)217.90	—20.18
1958–59 ..	32.93	0.40	—16.42	—78.24	— 86.91	— 79.29	(a)230.31	— 0.22

(a) See para. 9, note (a), p. 531.

NOTE.—Minus sign (—) denotes loss.

A graph showing the gross and net earnings and working expenses from 1870 to 1958–59 appears on page 525.

14. *Net Earnings, Grants to Railways, Interest, Sinking Fund, Surplus or Deficit, 1958–59.*—The following table shows, for each railway system for the year 1958–59, (i) net earnings as in para. 13 above, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT AT 30th JUNE, 1959.
(£'000.)

System.	Net Earnings—Excess of Gross Earnings over Working Expenses.	Plus Grants and other Earnings payable to Railways.			Less Other Expenses charged to Railways.						Surplus (+) or Deficit (—).
		State Gov't Grants.	Other Earnings.	Total.	Loan, Interest and Ex-change.	Sinking Fund.	Loan, Management Expenses.	Interest on Un-opened Lines.	Other.	Total.	
State—											
N.S.W. ..	4,828	(a) 1,800	..	1,800	11,343	1,535	200	..	..	13,078	—6,450
Vic. ..	31	(b) 14	..	14	3,617	197	..	..	(c) 68	3,882	d —3,837
Q'land ..	—1,335	..	(e) 76	76	3,492	..	..	175	..	3,667	f —4,926
S. Aust. ..	—2,246	(g) 4,650	(h) 2	4,652	1,884	..	..	..	(i) 85	1,969	j + 437
W. Aust. ..	—2,791	..	..	..	2,256	..	..	..	(k)	2,256	j —5,047
Tas. ..	—508	..	..	..	381	..	..	..	..	381	— 889
Total States	—2,021	6,464	78	6,542	22,973	1,732	200	175	153	25,233	—20,712
C'wealth ..	1,937	..	..	..	379	198	(l)	..	(m) 111	688	+ 1,249
Aust. ..	— 84	6,464	78	6,542	23,352	1,930	200	175	264	25,921	—19,463

(a) Grants to meet losses on country development lines £1,000,000; and to subsidize payments due from superannuation account £800,000. (b) Kerang-Koondrook Tramway recoup from Treasury.

(c) Net loss on railway-operated electric tramway and road motor services not included in previous pages. (d) Includes electric tramway and road motor services. (e) Net loss on Queensland portion of Uniform Gauge Railway as included in foregoing tables. (f) Excludes Queensland portion of Uniform Gauge Railway. (g) Grants towards working expenses £3,850,000 and debt charges £800,000. (h) Net profit on road motors not included in foregoing tables. (i) Interest and repayment under Railways Standardization Agreement, £59,696 interest and £25,291 repayment. (j) Includes road motor services. (k) £85 loss on road motor services. (l) £93 loan management expenses. (m) Includes salary of Railways Commissioner, Government contributions under Superannuation Act, expenditure from Railway Accident and Insurance Fund and proportion of salaries of Auditor-General's staff.

NOTE.—For further information on railways finance, in particular, expenditure from loan and other funds see Chapter XXI., Public Finance, of this Year Book. See also the reports of the various Commissioners.

15. **Traffic.**—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is located in a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. In recent years, competition from road and air transport has considerably increased.

The following table shows particulars of railway traffic for the years 1956–57 to 1958–59:—

GOVERNMENT RAILWAYS: TRAFFIC.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wea'th.	Aust.
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PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY).
(‘000.)

1956–57 ..	263,137	167,405	34,270	17,407	13,271	2,813	213	498,516
1957–58 ..	258,651	167,662	33,665	17,564	14,106	2,444	238	494,330
1958–59 ..	254,055	163,483	33,457	16,805	14,615	2,344	259	485,018

PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY) PER AVERAGE ROUTE-MILE WORKED.
(Number.)

1956–57 ..	43,116	37,832	5,308	6,823	3,223	4,809	93	18,797
1957–58 ..	42,381	38,088	5,214	6,931	3,426	4,273	106	18,696
1958–59 ..	41,628	37,522	5,207	6,634	3,550	4,141	115	18,404

GOVERNMENT RAILWAYS: TRAFFIC—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
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GOODS AND LIVESTOCK CARRIED.
(^{'000} Tons.)

1956-57	..	<i>a</i> 18,791	9,381	8,453	4,498	4,223	1,061	1,069	47,476
1957-58	..	<i>a</i> 18,502	8,892	7,766	4,146	3,589	1,096	1,259	45,250
1958-59	..	19,700	9,295	8,373	4,207	3,913	1,138	1,405	48,031

GOODS AND LIVESTOCK CARRIED PER AVERAGE ROUTE-MILE WORKED.
(Tons.)

1956-57	..	3,079	2,120	1,309	1,763	1,026	1,814	468	1,790
1957-58	..	3,032	2,020	1,203	1,636	872	1,916	558	1,711
1958-59	..	3,228	2,133	1,303	1,661	950	2,010	624	1,823

(a) Partly estimated.

(ii) *Passenger Traffic.* With the exception of the Commonwealth Railway Systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as "suburban" moves between stations within a classified suburban area around each capital city, whilst traffic classified as "country" originates or terminates at stations outside of this suburban area. Particulars of suburban and country passenger traffic are shown separately in the two tables following.

(a) *Suburban Passenger Traffic.* The following table shows a summary of suburban passenger operations for the years 1956-57 to 1958-59. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY.

Year.	Suburban Passenger-journeys.	Suburban Passenger Train-miles.	Suburban Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Suburban Passenger Earnings.			
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.
	(^{'000} .)	(^{'000} .)	(^{'000} .)		(Miles.)	(£ ^{'000} .)	(Pence.)	(Pence.)	(Pence.)

NEW SOUTH WALES.

1956-57	<i>a</i> 252,000	11,618	} (b)	(b)	(b)	(b)	(b)	(b)	(b)
1957-58	<i>a</i> 244,188	11,158				(b)	(b)	(b)	(b)
1958-59	239,738	11,175				12,027	12.04	(b)	258

VICTORIA.

1956-57	162,255	8,291	1,416,115	171	8.73	7,647	11.31	1.30	221
1957-58	162,632	8,353	1,433,794	172	8.82	7,613	11.24	1.27	219
1958-59	158,613	8,310	1,364,884	164	8.61	8,511	12.88	1.50	246

QUEENSLAND.

1956-57	28,783	2,070	} (b)	(b)	(b)	882	7.36	(b)	102
1957-58	28,524	2,082				890	7.49	(b)	103
1958-59	28,398	2,127				889	7.52	(b)	100

SOUTH AUSTRALIA.

1956-57	15,995	1,935	152,021	79	9.50	603	9.04	0.95	75
1957-58	16,390	2,065	<i>c</i> 131,179	80	8.00	702	10.28	1.28	82
1958-59	15,704	2,087	<i>c</i> 125,391	60	7.98	706	10.79	1.35	81

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY—*continued*.

Year.	Suburban Passenger-journeys.	Suburban Passenger Train-miles.	Suburban Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Suburban Passenger Earnings.			
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.
	('000.)	('000.)	('000.)		(Miles.)	(£'000.)	(Pence.)	(Pence.)	(Pence.)

WESTERN AUSTRALIA.

1956-57	12,497	1,303	86,102	66	6.89	391	7.52	1.09	72
1957-58	13,353	1,323	91,755	69	6.87	420	7.54	1.10	76
1958-59	13,880	1,320	93,958	71	6.77	434	7.50	1.11	79

TASMANIA.

1956-57	2,345	213	13,279	62	5.66	58	5.96	1.05	66
1957-58	2,122	204	12,895	63	6.08	54	6.14	1.01	64
1958-59	2,092	210	12,632	60	6.04	53	6.11	1.01	61

(a) Estimated. (b) Not available. (c) Revised basis.

NOTE.—Train-miles refer to revenue mileages only.

(b) *Country Passenger Traffic*. The following table shows a summary of country passenger operations for the years 1956-57 to 1958-59.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY.

Year.	Country Passenger-journeys.	Country Passenger Train-miles. (a)	Country Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Country Passenger Earnings.			
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.
	('000.)	('000.)	('000.)		(Miles.)	(£'000.)	(Pence.)	(Pence.)	(Pence.)

NEW SOUTH WALES.

1956-57	(b) 11,137	10,306	(c)	(c)	(c)	(c)	(c)	(c)	(c)
1957-58	14,463	9,762				(c)	(c)	(c)	(c)
1958-59	14,317	9,497				6,984	117.08	(c)	169

VICTORIA.

1956-57	5,150	4,709	437,481	93	84.95	3,717	173.25	2.04	189
1957-58	5,030	4,682	418,012	89	83.10	3,493	166.64	2.01	179
1958-59	4,870	4,699	414,539	88	85.12	3,466	170.80	2.01	177

QUEENSLAND.

1956-57	(d) 5,487	5,183	(c)	(c)	(c)	2,740	119.85	(c)	115
1957-58	(d) 5,141	4,935				2,560	119.53	(c)	118
1958-59	(d) 5,059	4,824				2,452	116.31	(c)	116

SOUTH AUSTRALIA.

1956-57	1,412	2,133	121,135	54	85.81	795	135.14	1.57	85
1957-58	1,174	2,112	112,781	52	96.05	803	164.18	1.71	89
1958-59	1,101	2,058	106,506	51	96.70	778	169.55	1.75	89

WESTERN AUSTRALIA.

1956-57	774	1,645	80,700	49	104.32	685	212.58	2.04	100
1957-58	753	1,565	80,171	51	106.41	670	213.51	2.01	103
1958-59	735	1,591	79,155	50	107.64	653	213.23	1.98	99

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY—*continued*.

Year.	Country Passenger-journeys.	Country Passenger Train-miles. (a)	Country Passenger-miles. (c'000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Country Passenger Earnings.			
						Gross. (£'000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger Train-mile. (Pence.)

TASMANIA.

1956-57	468	560	17,476	30	37.31	106	54.07	1.45	43
1957-58	322	367	14,471	37	44.91	91	67.53	1.50	55
1958-59	252	252	13,361	41	53.03	86	81.78	1.54	63

COMMONWEALTH. (e)

1956-57	213	725	83,984	104	393.95	741	834.47	2.12	220
1957-58	238	718	81,038	113	339.63	736	740.52	2.18	247
1958-59	259	781	80,910	108	312.92	739	685.90	2.19	236

(a) Excludes mixed-train miles. (b) Estimated. (c) Not available. (d) Traffic originating on the 3 ft. 6 in. gauge system and continuing on the Uniform Gauge Railway has been counted once only. (e) Railways controlled by Commonwealth Government.

NOTE.—Train-miles refer to revenue mileages only.

(iii) *Freight Traffic*.—(a) *Commodities Carried and Earnings*. Some indication of the differing conditions of the traffic in each system may be gained from an examination of the tonnage of the various classes of commodities carried, and of the earnings derived therefrom. The following table shows the quantities of various commodities carried during 1958-59 and the earnings derived.

GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS, 1958-59.

Railway System.	Coal, Coke and Briquettes.	Other Minerals. (a)	Agricultural Produce. (b)	Wool.	Live-stock.	All Other Commodities.	Total.
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QUANTITY CARRIED.
(c'000 Tons.)

New South Wales ..	8,874	925	1,996	245	727	6,933	19,700
Victoria ..	2,256	111	2,268	150	455	4,055	9,295
Queensland(c) ..	1,623	(d) 816	3,119	59	980	(e) 1,776	8,373
South Australia ..	119	1,191	1,040	48	239	1,570	4,207
Western Australia ..	544	247	1,371	67	149	1,535	3,913
Tasmania ..	265	41	35	4	29	764	1,138
Commonwealth ..	727	148	18	7	149	356	1,405
Australia ..	14,408	3,479	9,847	580	2,728	16,989	48,031

FREIGHT EARNINGS.
(£'000.)

New South Wales ..	(f)	(f)	(f)	(f)	3,810	(f)	50,524
Victoria ..	2,790	128	5,311	720	1,337	11,840	22,126
Queensland(c) ..	2,992	(d) 2,613	6,207	1,093	4,557	e 12,653	30,115
South Australia ..	123	3,146	1,664	270	735	4,116	10,054
Western Australia ..	1,010	529	2,795	399	424	6,086	11,243
Tasmania ..	620	60	81	17	74	1,574	2,426
Commonwealth ..	1,181	259	110	33	347	2,313	4,243
Australia ..	(f)	(f)	(f)	(f)	11,284	(f)	130,731

(a) Includes sand and gravel. (b) Includes wheat and fruit. (c) Includes Queensland portion of Uniform Gauge Railway. Tonnages carried over both systems have been counted once only. (d) Includes cement. (e) Excludes cement. (f) Not available.

(b) *Freight Summary.* A summary of freight traffic on each railway system for each of the years 1956-57 to 1958-59 is shown in the following table.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY.

Year.	Revenue Goods Train-miles. (a)	Revenue Net Ton-miles.	Average Train Load (Paying Traffic).	Average Haul per Ton.	Goods and Livestock Earnings.				Density of Traffic. (b)
					Gross.	Per Average Route-mile Worked.	Per Revenue Net Ton-mile.	Per Revenue Goods Train-mile.	
	(‘000.)	(‘000.)	(Tons.)	(Miles.)	(£’000.)	(£.)	(Pence.)	(Pence.)	
NEW SOUTH WALES.									
1956-57	14,317	c2,929,338	(c) 197	(c) 156	51,956	8,513	4.26	840	c 479,983
1957-58	13,290	c2,571,166	(c) 186	(c) 139	48,229	7,902	4.50	837	c 421,295
1958-59	13,710	2,735,635	194	139	50,524	8,279	4.43	859	448,244
VICTORIA.									
1956-57	5,502	1,317,393	238	140	22,110	4,997	4.25	961	297,716
1957-58	5,286	1,260,136	238	142	20,849	4,736	3.98	944	286,265
1958-59	5,394	1,352,516	250	146	22,126	5,078	3.93	982	310,424
QUEENSLAND.(d)									
1956-57	11,065	1,480,694	122	182	29,844	4,673	4.84	590	231,829
1957-58	10,304	1,326,030	114	177	27,974	4,380	5.06	578	207,614
1958-59	10,876	1,462,621	120	181	29,493	4,639	4.84	582	230,080
SOUTH AUSTRALIA.									
1956-57	2,811	648,397	215	144	10,990	4,308	4.07	874	254,174
1957-58	2,638	611,032	214	147	10,302	4,065	4.05	867	241,133
1958-59	2,501	605,377	224	144	10,054	3,969	3.99	893	238,996
WESTERN AUSTRALIA.									
1956-57	5,330	667,695	125	158	11,698	2,841	4.20	527	162,180
1957-58	4,440	572,176	129	159	10,506	2,552	4.41	568	138,979
1958-59	4,797	632,284	132	162	11,243	2,731	4.27	563	153,579
TASMANIA.									
1956-57	999	100,274	95	95	2,240	3,829	5.36	510	171,409
1957-58	919	102,164	105	93	2,290	4,004	5.38	566	178,609
1958-59	913	110,447	110	97	2,426	4,287	5.27	580	195,136
COMMONWEALTH.(e)									
1956-57	1,159	293,382	221	274	3,626	1,588	2.97	656	128,451
1957-58	918	341,721	286	272	4,006	1,776	2.81	804	151,472
1958-59	960	394,346	311	281	4,243	1,884	2.58	803	175,109

(a) Excludes mixed train-miles. (b) Total ton-miles per average route-mile worked. (c) Partly estimated. (d) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (e) Railways controlled by the Commonwealth Government.

16. **Rolling Stock.**—The following table shows the number of rolling stock of Government railways at 30th June, 1959.

GOVERNMENT RAILWAYS: ROLLING STOCK(a) AT 30th JUNE, 1959.

Railway System.	Locomotives.				Coaching Stock.(b)	Goods Stock.	Service Stock.
	Steam.	Diesel-electric.	Other.	Total.			
New South Wales ..	1,041	83	45	1,169	3,726	24,687	883
Victoria ..	388 (c)	78	52 (c)	518	(d) 2,448	20,972	(e) 1,517
Queensland ..	754	58	6	818	1,517	25,644	2,100
South Australia ..	243	41	..	284	(d) 675	8,068	(e) 473
Western Australia ..	325	66	10	401	590	11,222	971
Tasmania ..	69	32	11	112	92 (f)	2,664	183
Commonwealth ..	85	44	..	129	186	2,055	485
Australia ..	2,905	402	124	3,431	(g) 9,292	95,312	(g) 6,613

(a) Included in capital account. (b) Includes all brake vans. (c) Includes 3 locomotives on hire. (d) Excludes 58 interstate coaching stock owned jointly by Victoria and South Australia. (e) Excludes one dynamometer car owned jointly by Victoria and South Australia. (f) Includes 83 privately-owned goods stock vehicles. (g) Includes stock owned jointly by Victoria and South Australia.

17. **Accidents.**—The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the government railways of Australia during 1958–59:—

GOVERNMENT RAILWAYS: ACCIDENTS(a), 1958–59.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	C'wth.	Aust.
Persons killed ..	47	55	12	15	11	1	1	142
Persons injured ..	641	581	109	86	220	2	7	1,646

(a) Excludes accidents to railway employees.

18. **Consumption of Coal, Oil and Petrol.**—The following table shows the quantities of coal, oil and petrol consumed by the various government railways during 1958–59:—

GOVERNMENT RAILWAYS: COAL, OIL AND PETROL CONSUMED, 1958–59.

Railway System.	Coal.		Oil.				Petrol for Rail Cars.
	Locomotives.	Other Purposes.	Diesel Oil.(a)	Fuel Oil.(b)	Lubrication.	Other Purposes.	
	'000 tons.	'000 tons.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
New South Wales ..	1,009	15	9,762	6,254	692	537	12
Victoria ..	112	3	8,183	9,526	387	1,801	..
Queensland ..	533	6	5,972	..	286	359	246
South Australia ..	98	6	4,772	7,726	(c) 277	(c) 1,305	113
Western Australia ..	282	8	3,152	140	36	135	46
Tasmania ..	17	(d)	1,274	..	84	478	..
Commonwealth ..	(e)	(f)	3,520	10	..	..	5
Australia ..	2,051	38	36,635	23,656	(g) 1,762	(g) 4,665	422

(a) Used in internal combustion engines of locomotives and rail cars. (b) Used in oil-fired furnaces of steam locomotives. (c) Not available. (d) 439 tons. (e) 174 tons. (f) 326 tons. (g) Excludes South Australia.

19. **Staff Employed and Salaries and Wages Paid.**—The following table shows details of the average staff employed and the salaries and wages paid by the government railways of Australia during 1958–59.

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES AND SALARIES AND WAGES PAID, 1958-59.

Railway System.	Operating Staff.			Construction Staff.			Total Salaries and Wages Paid (£'000.)	Average Earnings Per Employee. (£.)
	Salaried.	Wages.	Total.	Salaried.	Wages.	Total.		
New South Wales ..	9,450	42,442	51,892	2	39	41	52,096	1,003
Victoria ..	(a) 5,376	a 24,589	a 29,965	(b)	(b)	(b)	29,562	987
Queensland ..	4,439	24,355	28,794	43	996	1,039	29,294	982
South Australia ..	1,824	7,821	9,645	8	970	978	10,177	958
Western Australia ..	1,981	11,135	13,116	(c)	(c)	(c)	12,036	918
Tasmania ..	351	2,066	2,417	30	153	183	2,330	896
Commonwealth ..	399	2,234	2,633	1	23	24	2,649	997
Australia ..	d 23,820	d 114,642	d 138,462	84	2,181	2,265	138,144	982

(a) Includes construction staff. (b) Included with operating staff. (c) Construction work is carried out by private contractors and the staff engaged is therefore not under the control of the Railway Commissioner. (d) Includes construction staff, Victoria.

C. TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES.

1. **Systems in Operation.**—(i) *Tramway and Trolley-bus.* Since 1st April, 1947, all systems have been operated by government or municipal authorities. Tramway systems are located in the following cities—New South Wales, Sydney; Victoria, Melbourne, Bendigo and Ballarat; Queensland, Brisbane; South Australia, Adelaide; and Tasmania, Hobart. Trolley-bus services operate in Sydney, Brisbane, Adelaide, Perth and Hobart. All systems are electric.

In many parts of Australia, private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Motor Omnibus.* Motor omnibus services are in operation in the capital cities and many other cities and towns of Australia. Government and municipal authorities operate certain services and the others are run by private operators; the former are run in conjunction with the existing electric tramway systems.

Particulars of motor omnibus services under the control of private operators are recorded in the States of New South Wales, Victoria, South Australia and Western Australia. In New South Wales particulars of private services are compiled for the Sydney Metropolitan and Newcastle transport district and the city of Greater Wollongong. In Victoria they relate to the Melbourne Metropolitan area only and in South Australia for services licensed by the Metropolitan Transport Trust and the Transport Control Board. In Western Australia particulars of all services throughout the State are included.

2. **Government and Municipal Services.**—(i) *Summary of Operations, States.* Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway services by motor

omnibus services, it is no longer possible to obtain separate statistics for all phases of the activities of each form of transport, particularly as regards financial operations. In this section, therefore, statistics of public tramway, trolley-bus and motor omnibus services are now combined (with separate details shown for each form of transport where possible) in single tables, instead of, as formerly, in separate tables for tramway and trolley-bus services and for omnibus services.

Tramway and trolley-bus services are controlled by Government authorities in all States except Queensland where the control is municipal (85 route miles). For tramway services, there were, at 30th June, 1959, 281 route miles of 4 ft. 8½ in. gauge and 5 route miles of 3 ft. 6in. gauge.

The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by Government and Municipal authorities, for 1958–59.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT
AND MUNICIPAL, 1958–59.**

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.(a)	Tas.	A.C.T.	Aust.
Route-miles at 30th June—								
Tram miles	42	166	66	7	..	5	..	286
Trolley-bus "	6	..	19	23	29	28	..	105
Omnibus "	527	52	430	102	3,772	728	53	5,664
Vehicle miles—								
Tram '000	6,940	21,319	7,953	844	12	591	..	42,936
Trolley-bus .. .. "	..	..	1,048	1,293	1,302	1,634	..	..
Omnibus "	39,789	5,920	5,601	9,947	13,179	3,457	988	78,881
Rolling Stock at 30th June—								
Tram No.	316	836	367	30	..	35	..	1,584
Trolley-bus "	20	..	30	56	90	83	..	279
Omnibus "	1,514	215	256	374	457	148	63	3,027
Passenger journeys—								
Tram '000	69,320	191,543	81,825	4,165	104	26,988	..	777,353
Trolley-bus .. .. "	..	..	12,088	6,379	7,253	..	..	..
Omnibus "	223,537	32,242	29,688	49,069	39,592	..	3,560	..
Net increase in capital equipment during year—								
Tram, Trolley-bus and Omnibus .. £'000	789	443	179	213	60	170	26	1,880
Gross revenue(b)—								
Tram, Trolley-bus and Omnibus .. £'000	12,290	8,482	3,578	2,528	2,051	1,087	146	30,162
Working expenses(c)—								
Tram, Trolley-bus and Omnibus .. £'000	14,295	8,047	3,560	2,800	2,253	1,176	207	32,338
Net revenue—								
Tram, Trolley-bus and Omnibus .. £'000	2,005	435	18	272	202	89	61	2,176
Ratio of working expenses to gross revenue—								
Tram, Trolley-bus and Omnibus .. per cent.	116.31	94.86	99.50	110.76	109.85	108.19	141.78	107.21
Employees—								
Tram, Trolley-bus and Omnibus .. No.	9,513	5,853	2,929	1,848	1,585	722	119	22,569
Accidents—								
Tram and Trolley-bus (d)—								
Persons killed .. No.	3	18	3	4	..	3	..	31
Persons injured .. "	226	1,009	593	392	103	76	..	2,399

(a) Trams ceased operation in Western Australia on 19th July, 1958, and during 1958–59 the Metropolitan Passenger Transport Trust commenced operations by acquiring five services which were previously privately owned.

(b) Excludes government grants. (c) Includes provision of reserves for depreciation, etc., where possible.

(d) Includes accidents relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (–) denotes deficit.

(ii) *Summary of Operations, Australia.* The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities, for the years 1954-55 to 1958-59.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA, 1954-55 TO 1958-59.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Route-miles at 30th June—					
Tram miles	443	427	398	344	286
Trolley-bus „	86	91	96	98	105
Omnibus „	4,492	4,571	4,869	4,803	5,664
Vehicle miles—					
Tram(a) '000	54,196	49,630	(b) 50,601	43,813	37,659
Trolley-bus „	6,081	6,273	6,053	5,803	5,277
Omnibus „	58,114	58,789	60,007	64,878	78,881
Rolling stock at 30th June—					
Tram No.	2,306	2,303	2,106	1,796	1,584
Trolley-bus „	320	316	310	305	279
Omnibus „	2,301	2,392	2,474	2,730	3,027
Passenger-journeys—					
Tram(a) '000	561,860	534,266	479,399	423,471	346,957
Trolley-bus „	34,265	34,185	32,263	28,607	25,720
Omnibus(c) „	369,867	358,593	320,605	350,652	404,676
Net increase in capital equipment during year—					
Tram, Trolley-bus and Omnibus .. £'000	1,455	1,799	2,770	2,932	1,880
Gross revenue(d)—					
Tram, Trolley-bus and Omnibus „	24,881	25,471	29,473	28,762	30,162
Working expenses(e)—					
Tram, Trolley-bus and Omnibus „	29,859	31,528	31,986	31,701	32,338
Net revenue—					
Tram, Trolley-bus and Omnibus „	-4,978	-6,057	-2,513	-2,939	-2,176
Ratio of working expenses to gross revenue—					
Tram, Trolley-bus and Omnibus per cent.	120.01	123.78	108.53	110.22	107.21
Employees—					
Tram, Trolley-bus and Omnibus No.	24,848	24,336	23,887	22,679	22,569
Accidents—					
Tram and Trolley-bus(f)—					
Persons killed .. No.	58	42	45	36	31
Persons injured .. „	3,177	3,077	3,158	2,969	2,399

(a) Includes particulars for New South Wales trolley-buses. (b) Tramway vehicle miles compiled on a revised basis for New South Wales, therefore figures from 1956-57 will not be comparable with those for previous years. (c) Includes particulars for Tasmanian trams and trolley-buses. (d) Excludes government grants. (e) Includes provision of reserves for depreciation, etc., where possible. (f) Includes accidents relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (—) denotes deficit.

3. *Private Services.—Summary of Operations.* The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, Victoria, South Australia and Western Australia during each of the years 1955–56 to 1958–59:—

MOTOR OMNIBUS SERVICES: PRIVATE.

—Year.	Number of Omnibuses.	Omnibus-miles. (‘000.)	Passenger-journeys. (‘000.)	Value of Plant and Equipment. (£’000.)	Gross Revenue. (£’000.)	Persons Employed.
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NEW SOUTH WALES.(a)

1955–56..	..	808	24,335	96,759	1,384	3,216	1,583
1956–57..	..	848	24,449	93,761	1,424	3,676	1,635
1957–58..	..	901	25,385	96,803	1,584	3,722	1,704
1958–59..	..	916	25,496	95,457	1,586	3,721	1,545

VICTORIA.(b)

1955–56..	..	467	16,064	78,698	(c) 519	1,994	(d) 735
1956–57..	..	459	16,094	74,026	655	2,196	732
1957–58(e)	..	472	15,701	73,020	670	2,219	714
1958–59(e)	..	469	15,592	72,005	670	2,206	750

SOUTH AUSTRALIA.(f)

1955–56..	..	(b) 113	6,082	13,508	} (g)	707	} (g)
1956–57..	..	117	6,045	13,254		712	
1957–58..	..	113	6,096	12,713		726	
1958–59..	..	116	6,042	12,107		732	

WESTERN AUSTRALIA.

1955–56..	..	372	12,172	32,607	1,125	1,581	827
1956–57..	..	378	11,801	30,802	1,142	1,594	837
1957–58..	..	383	11,644	29,881	1,030	1,577	800
1958–59(h)	..	146	6,028	15,846	260	804	287

(a) Metropolitan, Newcastle and Wollongong transport districts only. (b) Metropolitan area only. (c) Vehicles only. (d) Drivers only. (e) Partly estimated. (f) Services licensed by the Metropolitan Transport Trust and the Transport Control Board. (g) Not available. (h) During 1958–59, five private services were taken over by the Metropolitan Transport Trust.

D. FERRY (PASSENGER) SERVICES.

1. *General.*—Ferry services to transport passengers are operated in the following States—New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Derwent River at Hobart, on the Mersey River at Devonport and across D’Entrecasteaux Channel to Bruny Island. Control is exercised both by governmental authorities and by private operators. In Victoria and Queensland the services operated are not extensive, and there are no ferry services in South Australia.

2. **Summary of Operations.**—The operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1956–57 to 1958–59 are summarized in the following table. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES.

Year.	Number of Vessels.	Passenger Accommodation.	Passenger-journeys. (‘000.)	Gross Revenue. (£.)	Persons Employed.
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NEW SOUTH WALES—SYDNEY AND NEWCASTLE.

1956–57	40	22,950	16,810	875,000	341
1957–58	39	22,179	16,375	846,000	318
1958–59	37	19,300	15,906	800,196	308

WESTERN AUSTRALIA—PERTH.

1956–57	4	785	445	12,836	11
1957–58	4	785	442	13,520	11
1958–59	4	785	407	13,504	11

TASMANIA—HOBART AND DEVONPORT.

1956–57	5	1,602	707	29,632	24
1957–58	5	1,602	493	22,399	23
1958–59	5	1,602	445	22,202	23

E. MOTOR VEHICLES.

1. **Motor Industry.**—Chapter VI.—Manufacturing Industry contains summarized information on the motor industry of Australia and includes some data on the imports of motor bodies and chassis. Chapter XIII.—Trade contains further data on imports, including those of petroleum products.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia. Particulars regarding methods of registration, licences, fees payable, etc., in each State and Territory at 30th June, 1957 were given in Official Year Book, No. 44, pages 407–10.

3. **Taxi-cabs and Other Hire Vehicles.**—In all the capital cities and in most of the provincial centres, taxi-cabs and other vehicles ply for hire under licence granted by either the Commissioner of Police or the local government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—In both urban and provincial centres, motor omnibus traffic has assumed considerable proportions during recent years and in some States, the railway and tramway systems run motor services complementary to their main services. There has been a considerable replacement also, during the last few years, of existing tramway services by trolley-bus and motor omnibus services. (See pp. 541–4.)

5. **Motor Vehicles on the Register, etc.**—(i) *Registrations and Revenue.* The following table shows particulars of the registration of motor vehicles, licences issued and revenue received for 1958–59 and a summary for Australia for each of the years 1954–55 to 1958–59. It should be noted that in Victoria registration is made on the basis of the purpose for which the vehicle is to be used; consequently, motor car registrations are overstated by the inclusion of commercial vehicles registered for private use.

A graph showing for all motor vehicles other than motor cycles the registrations in force at 30th June of each year from 1925 to 1959 will be found on page 526.

MOTOR VEHICLES: REGISTRATIONS AND REVENUE.

State or Territory, and Year.	Number of Motor Vehicles Registered at 30th June. (a)				Number of Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—			
	Motor Cars. (b)	Commercial Vehicles. (c)	Motor Cycles.	Total.		Vehicle Registrations and Motor Tax. (£'000.)	Drivers' and Riders' etc., Licences. (£'000.)	Other Sources. (£'000.)	Total. (£'000.)
N.S.W. ...	589,692	290,695	32,575	912,962	243	1,227,564	10,737	1,273	3,904
Victoria (d) ...	599,292	166,577	23,489	789,358	280	908,343	8,869	575	2,773
Queensland ...	222,189	142,332	19,258	383,779	266	(e) 5,095	212	1,342	6,649
S. Aust. ...	179,627	66,329	17,078	263,034	286	324,606	3,605	395	102
W. Aust. ...	118,112	67,830	13,411	199,353	277	239,497	2,109	157	109
Tasmania ...	60,109	24,939	3,606	88,654	259	102,051	1,069	92	141
Nor. Terr. ...	3,499	4,260	714	8,473	405	9,974	47	7	1
A.C.T. ...	10,332	3,319	421	14,072	305	21,005	111	10	1
Australia ..	d1,782,852	d766,281	110,552	2,659,685	264	f2833040	31,642	2,721	8,373

STATES AND TERRITORIES, 1958–59.

SUMMARY, AUSTRALIA.

	(d)	(d)	(f)	(f)	(f)	(f)	(f)	(f)	(f)
1954–55 ..	1,341,996	654,674	133,029	2,129,699	231	2,295,854	22,951	1,758	3,764
1955–56 ..	1,467,252	683,396	125,600	2,276,248	241	2,457,246	24,438	1,875	3,385
1956–57 ..	1,564,335	707,107	119,963	2,391,405	248	2,575,896	27,379	2,743	4,265
1957–58 ..	1,675,638	735,171	115,883	2,526,692	257	2,703,328	30,699	2,368	5,467
1958–59 ..	1,782,852	766,281	110,552	2,659,685	264	2,833,040	31,642	2,721	8,373

(a) Excludes, at 30th June, 1959, trailers (190,735), road tractors, etc. (37,131), and dealers' plates (9,320). (b) Includes taxis and hire cars. (c) Includes utilities, panel vans, trucks, omnibuses, and station wagons. (d) See reference to Victoria above. (e) Not available. (f) Excludes Queensland.

NOTE.—All Commonwealth-owned vehicles are included except those belonging to the Defence Services. Prior to 1st January, 1956, Department of the Navy vehicles were also included.

(ii) *Relation to Population.* The table following shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 30th June for each of the years 1955 to 1959.

MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
30th June, 1955 ..	192	238	213	254	234	211	252	258	217
„ 1956 ..	204	250	223	257	243	223	272	277	228
„ 1957 ..	213	255	233	264	245	231	313	274	236
„ 1958 ..	224	264	243	269	251	241	360	286	245
„ 1959 ..	234	272	253	267	259	248	370	296	253

NOTE.—See NOTE to previous table.

6. **New Vehicles Registered.**—(i) *States and Territories, 1958–59.* The following table shows the number of new vehicles registered in each State and Territory during 1958–59. A graph showing the number of new motor vehicles (excluding motor cycles) registered during each of the years 1928–29 to 1958–59 will be found on page 526.

NEW MOTOR VEHICLES REGISTERED, 1958–59.

Vehicles.	N.S.W.	Vic.(a)	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Motor cars (b) ..	58,302	56,337	20,956	16,760	10,389	5,416	391	1,630	170,181
Commercial vehicles, etc.(c) ..	34,357	14,620	11,278	6,110	5,140	2,059	352	474	74,390
Motor cycles ..	2,690	2,234	1,606	1,095	2,071	176	37	83	9,992
Total ..	95,349	73,191	33,840	23,965	17,600	7,651	780	2,187	254,563

(a) See para. 5 on p. 546. (b) Includes taxis and hire cars. (c) Includes utilities, panel vans, trucks, omnibuses and station wagons.

NOTE.—See NOTE to table on p. 546.

(ii) *Australia.* Particulars of the number of new vehicles registered in Australia during each of the years 1954–55 to 1958–59 are shown in the following table:—

NEW MOTOR VEHICLES REGISTERED: AUSTRALIA.

Vehicles.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Motor cars (a)(b)	166,801	163,598	149,695	165,236	170,181
Commercial vehicles, etc.(b)(c)	67,188	69,312	58,967	67,139	74,390
Motor cycles	11,282	10,530	9,655	10,604	9,992
Total	245,271	243,440	218,317	242,979	254,563

(a) Includes taxis and hire cars. (b) See para. 5 on p. 546. (c) Includes utilities, panel vans, trucks, omnibuses and station wagons.

NOTE.—See NOTE to table on p. 546.

7. **World Motor Vehicle Statistics, 1959.**—At 1st January, 1959 there were 112,724,300 motor cars, trucks and omnibuses registered in various countries of the world. This was an increase of 5.3 per cent. on the figure for the previous year, 107,023,800. Of the 1959 registrations, 67,824,700 or 60.2 per cent. of the world total were in the United States of America, whilst Australian registrations amounted to 2.3 per cent. This information is largely derived from the *American Automobile*, May, 1959.

F. ROAD TRAFFIC ACCIDENTS.

1. **General.**—Statistics, of “Total Accidents Recorded”, were collected to 31st December, 1957, on a comparable basis for all States except Tasmania, where, under legislation passed on 10th August, 1954, it became no longer obligatory to report accidents involving only damage to property. However, this series was suspended from 1st January, 1958, due to the inconsistency between States in recording “damage only” accidents and the distortion of the statistics caused by the difficulty of assessing damage to property.

Details are not available in respect of road traffic accidents which occur in the Northern Territory.

2. **Accidents Involving Casualties.**—(i) *States, 1958–59.* The following table gives a summary of accidents involving casualties in each State and the Australian Capital Territory for the year 1958–59.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): ACCIDENTS
RECORDED AND CASUALTIES, 1958–59.**

State or Territory.	Accidents Involving Casualties.	Persons Killed.			Persons Injured.		
		Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.	Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.
New South Wales ..	15,216	833	22	9	19,854	533	224
Victoria ..	12,462	661	24	9	16,784	605	218
Queensland ..	5,603	333	23	9	7,700	540	206
South Australia ..	3,984	185	20	7	5,183	571	198
W. Australia ..	3,450	178	25	9	4,506	633	232
Tasmania ..	791	68	20	8	990	290	114
Aust. Cap. Terr. ..	260	6	14	5	342	788	260
Total ..	41,766	2,264	23	9	55,359	557	214

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1958–59 in each State and the Australian Capital Territory, classified into drivers, riders, pedestrians, etc.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): DRIVERS, RIDERS,
PEDESTRIANS, ETC., KILLED OR INJURED, 1958–59.**

Drivers, Riders, Pedestrians, etc.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
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PERSONS KILLED.

Drivers of Motor Vehicles	228	200	91	46	41	13	3	622
Motor Cyclists ..	68	35	39	18	15	7	..	182
Pedal Cyclists ..	34	47	24	19	12	3	2	141
Passengers (all types)(b)	228	173	95	53	54	22	..	625
Pedestrians ..	271	203	84	49	56	23	1	687
Other Classes(c)	4	3	..	..	..	..	..	7
Total ..	833	661	333	185	178	68	6	2,264

PERSONS INJURED.

Drivers of Motor Vehicles	5,600	5,223	2,143	1,440	1,128	280	119	15,933
Motor Cyclists ..	1,831	925	994	774	730	79	42	5,375
Pedal Cyclists ..	1,183	1,464	656	576	401	71	45	4,396
Passengers (all types)(b)	7,723	6,491	3,158	1,857	1,604	343	114	21,290
Pedestrians ..	3,477	2,614	736	531	638	215	21	8,232
Other Classes(c)	40	66	13	5	5	2	1	132
Not Stated ..	..	1	..	..	..	..	..	1
Total ..	19,854	16,784	7,700	5,183	4,506	990	342	55,359

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment. (b) Includes pillion riders. (c) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

(iii) *Ages of Persons Killed or Injured.* The following table shows the age groups of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during 1958-59:—

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): AGES OF PERSONS KILLED OR INJURED, 1958-59.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5 ..	21	17	10	8	9	4	..	69
5 and under ..	13	8	5	5	6	2	..	39
7 " " 17 ..	47	49	30	13	19	7	..	165
17 " " 21 ..	94	71	55	28	17	9	1	275
21 " " 30 ..	148	87	58	28	18	21	2	362
30 " " 40 ..	111	81	45	32	30	2	..	301
40 " " 50 ..	99	74	27	17	21	6	1	245
50 " " 60 ..	89	84	28	16	18	7	2	244
60 and over ..	208	145	73	29	40	10	..	505
Not Stated ..	3	45	2	9	..	..	..	59
Total ..	833	661	333	185	178	68	6	2,264

PERSONS INJURED.								
Under 5 ..	593	553	236	161	151	43	8	1,745
5 and under ..	445	371	149	116	100	24	6	1,211
7 " " 17 ..	2,425	2,148	1,027	701	587	136	42	7,066
17 " " 21 ..	3,320	2,397	1,563	924	851	153	63	9,271
21 " " 30 ..	4,257	3,656	1,617	938	803	182	96	11,549
30 " " 40 ..	2,910	2,648	1,078	654	580	116	60	8,046
40 " " 50 ..	2,265	1,881	782	496	392	76	35	5,927
50 " " 60 ..	1,566	1,386	542	330	357	78	18	4,277
60 and over ..	1,638	1,385	578	331	280	74	14	4,300
Not Stated ..	435	359	128	532	405	108	..	1,967
Total ..	19,854	16,784	7,700	5,183	4,506	990	342	55,359

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for the year 1958-59, the number of accidents involving casualties in which each of several classes of vehicles, road users, etc., were involved. The persons killed and injured are similarly classified.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a), CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED, AUSTRALIA, 1958-59.(b)

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Fixed Object.	Other Vehicle.
Accidents Involving ..	38,520	6,461	4,613	390	499	8,423	2,738	285
Casualties ..	2,116	232	153	21	14	674	133	53
Persons Killed ..	51,713	7,353	4,697	437	596	8,274	3,775	348

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(b) It should be noted that, as accidents and casualties classified according to one type of road user, etc., may also be classified according to another, these totals cannot be added across to obtain grand totals. The figures above exclude 43 accidents involving casualties which were not classified according to type of vehicle, road user, etc., involved, from which there were 5 persons killed and 48 persons injured.

It will be seen, therefore, that in 1958-59, motor vehicles were involved in 38,520 accidents involving casualties from which there were 2,116 persons killed and 51,713 persons injured. The 38,520 accidents involving casualties in which motor vehicles were involved comprised 12,102 collisions with other motor vehicles, 4,151 with motor cycles, 3,815 with pedal cycles,

162 with trams, 266 with animals and animal-drawn vehicles, 7,621 with pedestrians, 2,389 with fixed objects, 211 with vehicles other than those mentioned, 7,262 instances of overturning or leaving the roadway, and 541 accidents to passengers only. The particulars of accidents involving casualties in which motor cycles, pedal cycles, etc., were involved with motor vehicles are also included under their respective headings in the table above. Consequently, since the figures in each column refer to the *total* accidents involving casualties in which the particular type of vehicle, etc., was involved, any aggregation across would result, through duplication, in considerable overstatement of the actual totals.

3. **Road Traffic Accidents Involving Casualties, and Persons Killed or Injured.**—The following table shows the number of road traffic accidents involving casualties and persons killed or injured in road traffic accidents in each State and the Australian Capital Territory during each of the years 1954–55 to 1958–59:—

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) AND PERSONS
KILLED OR INJURED.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.	
								Num- ber.	Per 10,000 Motor Vehicles Regis- tered.

ACCIDENTS INVOLVING CASUALTIES.

1954–55	12,557	10,217	6,586	3,098	3,149	864	131	36,602	172
1955–56	12,917	10,606	7,116	2,886	3,211	874	156	37,766	166
1956–57	13,473	10,804	7,527	3,142	3,082	852	186	39,066	167
1957–58	14,646	9,536	6,565	4,372	3,338	779	237	39,473	161
1958–59	15,216	12,462	5,603	3,984	3,450	791	260	41,766	162

PERSONS KILLED.

1954–55	798	528	273	173	206	57	7	2,042	10
1955–56	808	582	298	167	185	72	7	2,119	10
1956–57	774	589	325	185	168	65	7	2,113	9
1957–58	794	571	342	200	164	70	5	2,146	9
1958–59	833	661	333	185	178	68	6	2,264	9

PERSONS INJURED.

1954–55	15,959	12,833	8,421	3,926	4,036	1,111	179	46,465	226
1955–56	17,047	13,483	9,170	3,709	4,098	1,046	220	48,773	221
1956–57	17,321	14,120	9,800	3,944	3,921	1,107	237	50,450	216
1957–58	19,378	13,035	8,739	5,492	4,249	1,000	320	52,213	213
1958–59	19,854	16,784	7,700	5,183	4,506	990	342	55,359	214

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

G. CIVIL AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration was published in Official Year Book No. 16, pages 534–5.

2. **Foundation and Administration of Civil Aviation.**—A brief account of the foundation and objects of this Administration will be found in Official Year Book No. 19, page 299. Official Year Book No. 38 and earlier issues contain information on the control of civil

aviation by the Board (1936) and later (1939) by the Department of that name. The Acts defining the broad principles of operation of the administration of civil aviation and the Regulations amplifying them, and the principal functions of the administration are also described.

The Department of Civil Aviation is divided into eleven Divisions as follows:—Air Transport and External Relations; Administration, Personal and Establishments; Finance and Stores; Airport Engineering; Aviation Buildings and Property; Flying Operations; Airworthiness; Airways Operations; Airways Engineering; Aviation Medicine; Accident Investigation and Analysis.

3. International Activity.—(i) *International Organizations.* A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council and the South Pacific Air Transport Council appeared in Official Year Book No. 37 and particulars of subsequent activity in the international field were included in issue No. 38. The International Civil Aviation Organization had a membership of 74 nations at the end of June, 1959. Australia has continued her representation on the Council, a position which she has held since I.C.A.O. was established in 1947. The thirteenth meeting of the South Pacific Air Transport Council was held in New Zealand in December, 1959. Further details will be found in Official Year Book No. 40 and earlier issues.

(ii) *International Air Services.* Qantas Empire Airways have introduced into service seven Boeing 707 jet aircraft and four Lockheed Electra aircraft. The Boeing 707 operates to North America and on to the United Kingdom and also to the United Kingdom via the Middle East. Qantas, in October, 1959 became the first airline to operate a round-the-world pure-jet air service. Lockheed Electra aircraft are in service to Japan via Manila and Hong Kong. Super Constellation aircraft provide services to South Africa across the Indian Ocean, to Papua and New Guinea, and a cargo service to United Kingdom via the Middle East. DC4 aircraft fly to Norfolk Island and DC3 aircraft fly to the British Solomon Islands and to Netherlands New Guinea. Qantas was operating aircraft over 62,365 route-miles on international services at 30th June, 1959. A summary of the operations of overseas services wholly or partly Australian-owned appears on page 556.

Three Lockheed Electra aircraft operated by Tasman Empire Airways Ltd., which is jointly owned by the Australian and New Zealand Governments, link Sydney and Melbourne with both Auckland and Christchurch.

4. Regular Air Services within Australia.—Details of the Government's rationalization scheme and the 1957 amendment to the Civil Aviation Agreement Act consequent upon Ansett Transport Industries Ltd. purchasing Australian National Airways Pty. Ltd. will be found in Official Year Book No. 44, page 421.

The Airlines Equipment Act assented to in October, 1958, gave effect to financial arrangements whereby re-equipment programmes would be assisted. This re-equipment programme has been highlighted by the introduction of Fokker Friendship and Lockheed Electra aircraft into regular air services provided within Australia.

The Act also contains further rationalization provisions whereby the Minister for Civil Aviation can determine the maximum capacity to be operated by the Australian National Airlines Commission and Ansett Transport Industries Ltd. on both competitive and non-competitive routes. In this regard the Act provides for consultation between the two Airlines and the Director-General of Civil Aviation for the purpose of considering matters relevant to the making of estimates and determinations of capacity.

A summary of the operations of regular air services within Australia appears on page 556 and a map showing air routes on pages 559-60.

5. Air Ambulance Services.—A brief statement on the foundation and objects of the Air Ambulance Services will be found in Official Year Book No. 32, pages 145 and 146.

During the year 1958-59, the Air Ambulance and Royal Flying Doctor Services continued to provide medical aid for the outback regions of Australia. The Commonwealth Department of Health operates the Northern Territory Aerial Medical Service with two Drovers and two Dove aircraft. The Royal Flying Doctor Service of Australia, operating from Broken Hill, New South Wales (two Drovers), and Port Hedland, Western Australia (three Cessna and one DH83), covers a wide area of inland Australia. The Bush Church

Aid Society for Australia and Tasmania, supported by funds from the Church of England, maintains two aircraft (one Percival Proctor III and one Lockheed 12A) at Ceduna, South Australia. The Federal Methodist Inland Mission (one DH82A) operates services from Meekatharra, Western Australia, and the Queensland Ambulance Transport Brigade operates a service from Cairns (one DH89A, one Auster J5B and one Cessna 182A).

6. Training of Air Pilots.—A brief statement of the pre-war policy of the Commonwealth Government regarding assistance to Aero Clubs was given in Official Year Book No. 32, page 146. A summary of the assistance granted during the years 1951 to 1956 will be found in Official Year Book No. 42, page 253, whilst details of the new contract, initiated on 1st January, 1957, and the assistance granted during 1956–57 will be found in Official Year Book No. 44, page 421.

During the year 1958–59, the flying training organizations (non-profit aero clubs and commercial flying schools) earned bonuses in respect of 393 private pilot licences, 106 commercial pilot licences and 41 initial instructor ratings. It should be noted that, under the new contract, commercial licence issue and instructor rating bonuses were substituted for renewal bonuses. Subsidized hours flown by aero clubs and flying schools numbered 82,165 and the total earnings of all organizations amounted to £189,985. An overall limit placed on the subsidy restricted the total payments to £145,000. There were 31 aero clubs and 6 commercial flying training schools in operation during the year, and, in addition to civil flying, some 13,724 unsubsidized civil hours and 4,953 service training hours were flown; in all, a total of 100,842 hours.

7. Gliding Clubs.—For the year 1958–59, a total subsidy of £3,000 was distributed to member clubs of the Gliding Federation of Australia, on the basis of £1,500 for membership and £1,500 for gliding certificates issued. In addition, the Federation received a grant of £1,000 towards the cost of operation of its school for instructors and engineers.

8. Airways Engineering.—In the fields of airways engineering which includes the provision of radio navigation facilities, radio communication systems and airport lighting, steady progress was made during the year 1958–59.

Both the high frequency and very high frequency communications systems have been extended. On the very high frequency side the expansion has been particularly noteworthy, the object being to increase the coverage area available for direct speech between aircraft in flight and air traffic controllers. With the completion of the Mount Barrow installation in Tasmania and the Arthur's Seat installation in Victoria there is now complete coverage over Bass Strait. The station at Kings Tableland, New South Wales, has been completed. This station is the major outlet for very high frequency transmission from the Sydney area and is one of the most important repeater stations. It provides remote control facilities from Kingsford-Smith Airport to the Sydney International Transmitting Station and is a vital station in the plan to provide voice communication with aircraft flying on the Sydney-Brisbane route.

The Sydney International Transmitting Station at Llandillo has now gone into full operation and is providing, amongst other services, five radio teletype circuits to overseas stations. This station together with the International Transmitting Station previously opened at Darwin has made possible substantial improvements to the overseas communications so vital in the control of international air traffic. Radio teletype circuits within the Commonwealth have been extended and these additional services have increased the efficiency of point to point communications. The high frequency air-ground-air communication networks have been extended to provide improved communications for commercial aircraft operations and an entirely separate network has been set up to provide exclusive channels for communications with light aircraft. Steady progress has been made towards improving communications in the Territory of Papua and New Guinea.

In the field of radio navigational aids, instrument landing systems have been installed at Adelaide, Port Moresby and Avalon. In addition 2 distance measuring beacons, 5 locators, 2 non-directional beacons and 2 visual aural ranges have been brought into service. Airport radar systems have been made operational at Melbourne and Sydney where they are being used as an aid to terminal air traffic control.

A special effort has been made in the field of air traffic control engineering and as a result the air traffic control centres and control towers at Hobart, Launceston and Darwin have been completely re-equipped. The aeradio station at Cloncurry has been rebuilt and this has become one of the Commonwealth's most important inland aeradio stations. In view of the large number of small aeradio stations in the Commonwealth that must be re-equipped, considerable attention has been given to the design and manufacture of component parts to prefabricate new installations which will be used to replace old ones. Although no installations of this nature have been made, the designs have been prepared and the materials are available and it is hoped this will result in a rapid re-equipment programme for aeradio stations.

In the field of airport lighting the most note-worthy addition to facilities has been the completion of three high intensity approach lighting installations at Sydney, Darwin and Hobart.

9. Meteorological Services.—The Department of Civil Aviation is the biggest user of meteorological services in the Australian Commonwealth and its territories, and therefore the requirements for civil aviation purposes have played a big part in determining the form of meteorological organization that exists at the present time.

The need for the dissemination of adequate and accurate meteorological information to flights has become more important in recent years with the greater demands of high performance aircraft, with their more critical fuel requirements and greater susceptibility to changes in atmospheric conditions.

The Department and the Commonwealth Bureau of Meteorology have now completed working arrangements designed to meet the very precise requirements of modern civil aviation in Australia.

The working arrangements specify the standards of service, times and places of operation and facilities required for the provision of meteorological services for civil aviation.

10. Search and Rescue.—On 1st November, 1958, the Department assumed full responsibility for co-ordination of search and rescue activity throughout the Australian flight information regions except Darwin, where by arrangement with the Royal Australian Air Force, search and rescue is co-ordinated by the Officer Commanding. The Department also arranges for the availability of search and rescue facilities.

Previously, the Royal Australian Air Force, in operational and financial agreement with the Department of Civil Aviation provided the bulk of the sea-air rescue facilities and the organization to co-ordinate those facilities.

The current search and rescue plan provides for the availability of search aircraft on a self-help basis from within the aviation industry, supplemented by special arrangements with the Department of Shipping and Transport, the Department of the Navy, launch owners, police and military forces, forestry units and so on.

In using general duty aircraft for sea-air rescue purposes, it is necessary to temporarily equip them with droppable dinghies and/or droppable storpedoes fitted with first aid gear, food and water. This, in turn, has necessitated the establishment of limited supplies of these facilities at strategic points throughout Australia and the Territory of Papua and New Guinea.

Along the coastlines of the Commonwealth, marine craft are available and serve as auxiliary sea-air rescue units. However, at selected major aerodromes near the coastline and at Cocos Islands, the Department provides marine craft on a lifeboat principle.

Due to the very high cost of long range ocean going rescue ships, oceanic rescue requirements must be satisfied by the use of naval and mercantile shipping diverted to the scene of distress. International law requires the master of a merchant ship at sea to proceed with the utmost dispatch to a distress scene and arrangements have been made for the plotting of all shipping movements upon the declaration of an emergency phase.

Land rescue units are organized in close co-operation with Air Force, Army, Forestry and Police organizations.

11. **Aircraft Parts and Materials.**—At 30th June, 1959, the number of firms and organizations approved by the Department of Civil Aviation to trade in the aircraft industry was 480.

12. **Aircraft Overhaul and Repair.**—Aircraft overhaul and repair is carried out in workshops approved by the Director-General of Civil Aviation. Components and accessories are now certified on release notes signed by approved members of the firm's inspection organization.

13. **Test and Examination of Aircraft Parts and Materials.**—This work is carried out in test houses and laboratories registered by the National Association of Testing Authorities, except when production is for the manufacturer's own use, when the testing, etc. can be done in an approved laboratory. Certificates issued under registrations by the Association are acceptable to any Commonwealth Government Department.

14. **Statistical Summaries.**—(i) *Registrations, Licences, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June in each of the years 1955 to 1959.

CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA.(a)

Particulars.	At 30th June—				
	1955.	1956.	1957.	1958.	1959.
Registered aircraft owners ..	414	437	485	570	642
Registered aircraft	887	934	1,054	1,180	1,246
Pilots' Licences—					
Private	2,245	2,453	2,592	2,628	2,801
Commercial	582	578	709	845	910
Senior Commercial .. ..	..	76	99	100	130
Helicopter (Commercial) ..	..	11	21	18	17
Student	3,193	3,272	3,397	3,493	3,465
1st Class Airline Transport	548	600	606	656	652
2nd „ „ „ ..	25	9	7	} (b) 389	389
3rd „ „ „ ..	390	394	414		
Navigators' Licences—					
Flight Navigator	161	177	187	176	177
Radio Operators' Licences—					
1st Class Flight Radio-Tele- graphy Operator	78	75	69	63	56
Flight Radio-Telephone Operator—					
1st Class	820	} (c) 1,386	1,574	1,823	2,203
2nd „	309				
3rd „	137				
Flight Engineers' Licences ..	98	94	116	176	189
Aircraft Maintenance Engineers' Licences	1,747	1,818	1,915	2,016	2,266
Aerodromes, Australia—					
Government(d)	185	188	169	168	168
Licensed(e)	303	301	313	311	304
Flying Boat Bases(f) ..	13	13	13	13	13

(a) Except for aerodromes and flying-boat bases, includes the Territory of Papua and New Guinea.
 (b) 3rd class abolished and existing licences became 2nd class. (c) Since 1956 only one category (Flight Radio-telephone Operator). (d) Under the control and management of the Department of Civil Aviation. (e) Aerodromes under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (f) Includes alighting areas.

(ii) *Aircraft on the Australian Register.* A summary of aircraft on the Australian register at 31st December, 1959, classified according to the principal types of operation in which they are engaged, is shown in the following table.

AIRCRAFT ON THE AUSTRALIAN REGISTER(a), 31st DECEMBER, 1959.

Type of Aircraft.	Number.	Type of Aircraft.	Number.
(i) <i>Aircraft Engaged in Regular Public Transport—</i>		(iii) <i>Aircraft used for Private Purposes—</i>	
Avro Anson	4	Auster (All Types) ..	128
Convair 440	5	Avro Anson	11
De Havilland (All Types) ..	8	Beechcraft	9
Douglas—		Cessna	66
DC3	59	De Havilland—	
DC4 (Skymaster)	7	DH82 Tiger Moth ..	74
DC6, DC6B	6	Other	54
Fokker Friendship	11	Fairchild	10
Lockheed—		Miles (All Types) ..	17
Electra	8	Percival (All Types) ..	22
Super Constellation	11	Piper	19
Vickers Viscount	21	Ryan	10
Other Types	20	Stinson	7
		Wackett	10
		Other Types	44
<i>Total</i>	<i>160</i>	<i>Total</i>	<i>481</i>
(ii) <i>Aircraft Available for Air Charter—</i>		(iv) <i>Aircraft used for other Purposes(c)—</i>	
Auster (All Types)	60	Auster (All Types) ..	17
Avro Anson	20	Avro Anson	10
Cessna	65	Cessna (Single Engine) ..	13
De Havilland—		De Havilland—	
DH82	19	DH82	213
DH84	9	Chipmunk	56
Other	17	Other	18
Percival (All Types)	8	Piper	14
Piper (All Types)	25	Other Types	(d) 40
Other Types	(b) 49	<i>Total</i>	<i>381</i>
<i>Total</i>	<i>272</i>	<i>Grand Total</i>	<i>1,294</i>

(a) Includes those based in the Territory of Papua and New Guinea. (b) Includes 8 helicopters
(c) Flying School training, aerial top-dressing, etc. (d) Includes 3 helicopters.

(iii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during each of the years 1954–1955 to 1958–59.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Hours flown	257,787	251,900	251,139	237,981	229,396
Miles	43,513	43,701	42,120	40,533	40,287
Paying passengers	1,918,125	2,020,380	2,125,338	2,122,794	2,235,070
Paying passenger-miles	765,652	827,885	891,196	898,542	944,379
Freight—					
Tons(a)	78,711	84,446	75,092	70,003	62,755
Ton-miles(a)	36,984	38,909	36,330	32,987	28,841
Mail—					
Tons(a)	2,317	2,478	2,514	2,642	2,727
Ton-miles(a)	1,257	1,357	1,404	1,446	1,472

(a) In terms of short tons (2,000 lb.).

(iv) *Operations of Oversea Services wholly or partly Australian-owned.* The following table furnishes a summary of oversea services, wholly or partly owned by Australian interests, operating between Australia and oversea countries, including Pacific islands and the Territory of Papua and New Guinea, during the years 1954–55 to 1958–59. The operations of Qantas Empire Airways, Tasman Empire Airways Ltd. and British Overseas Airways Corporation are included, but those of Canadian Pacific Airlines, K.L.M., South African Airways, Air India International and Pan-American Airways are excluded.

CIVIL AVIATION: OPERATIONS OF OVERSEA SERVICES.(a)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Route miles (unduplicated) at 30th June ..	63,774	58,618	62,675	71,729	74,704
Hours flown	49,326	50,665	56,939	63,917	68,811
Miles '000	11,128	12,028	13,614	15,267	16,486
Paying passengers	114,371	131,934	155,618	164,634	176,120
Paying passenger-miles '000	317,565	383,930	476,831	501,388	534,728
Freight—					
Tons(b)	2,662	2,990	2,957	3,205	3,431
Ton-miles(b) '000	9,372	10,494	11,203	12,051	15,381
Mail—					
Tons(b)	1,442	1,491	1,622	1,749	1,647
Ton-miles(b) '000	7,927	8,458	9,450	9,789	8,834

(a) Airlines wholly or partly owned by Australian interests.

(b) In terms of short tons (2,000 lb.).

(v) *Accidents and Casualties.* The number of accidents involving aircraft on the Australian register in which persons were killed or injured is shown in the following table for the years 1954–55 to 1958–59.

CIVIL AVIATION: ACCIDENTS INVOLVING AUSTRALIAN AIRCRAFT.(a)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number(b)	22	31	37	35	39
Persons killed	27	22	24	28	21
Persons injured	19	27	36	31	30

(a) Includes accidents and casualties in the Territory of Papua and New Guinea. all accidents irrespective of whether they involved death or injury.

(b) Includes

15. **Territory of Papua and New Guinea.**—In this area there were, at 31st December, 1959, 18 aerodromes and 21 water aerodromes under the control of the Department of Civil Aviation; 93 aerodromes under the control of the Territory Administration; 2 aerodromes under joint control by the Department of Civil Aviation and the Territory Administration; and 13 aerodromes (licensed for commercial operations) under private control. One permanently maintained heliport and approximately 25 permanently maintained helicopter clearings were also in existence, as well as a number of unlicensed private aerodromes and helicopter clearings.

Four companies conduct regular services between the major aerodromes. Charter flights can be arranged to almost any locality. Further information may be found in Chapter V.—The Territories of Australia.

During the year 1958–59, one accident (one death) involving aircraft occurred in the Territory of Papua and New Guinea.

PART II.—COMMUNICATION.

A. POSTS; TELEGRAPHS; TELEPHONES; CABLE AND RADIO COMMUNICATION.

NOTE.—In this Division particulars for the Australian Capital Territory are included with those for New South Wales, while the South Australian figures include particulars for the Northern Territory unless otherwise indicated.

§ 1. General.

1. **The Postmaster-General's Department.**—Under the provisions of the Post and Telegraph Act 1901, the Department was placed under the control of the Postmaster-General. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Director of Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) and the number of inhabitants to each 100 square miles in each State and in Australia at 30th June, 1959. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION AT 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices(a)	2,563	2,278	1,263	904	633	517	8,158
Number of square miles of territory per office	121	39	528	1,000	1,542	51	364
Number of inhabitants per office ..	1,484	1,236	1,141	1,042	1,136	662	1,233
Number of inhabitants per 100 square miles	1,225	3,203	216	104	74	1,306	339

(a) Includes "official", "semi-official", and "non-official" offices.

The foregoing table does not include "telephone" offices at which no postal business is transacted.

(ii) *Number of Offices.* The following table shows the number of post offices (exclusive of telephone offices) in each State at 30th June, 1959.

NUMBER OF POST OFFICES AT 30th JUNE, 1959.

Type of Office.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Official and Semi-official(a) ..	512	320	221	167	148	53	1,421
Non-official	2,051	1,958	1,042	737	485	464	6,737
Total	2,563	2,278	1,263	904	633	517	8,158

(a) There were two semi-official post offices in N.S.W. and two in Victoria.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at 30th June, 1959 are given in the following table:—

**NUMBER OF POSTAL EMPLOYEES AND MAIL CONTRACTORS AT
30th JUNE, 1959.**

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Employees	1,220	36,058	26,718	13,973	9,319	6,723	3,762	97,773
Mail Contractors(a) ..	..	2,125	1,126	1,253	374	274	250	5,402

(a) Includes persons employed to drive vehicles.

3. *Gross Revenue, Branches—Postmaster-General's Department.*—The gross revenue (actual collections) in respect of each branch of the Department during the year 1958–59 is shown in the table hereunder:—

POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, 1958-59.(a)
(£'000.)

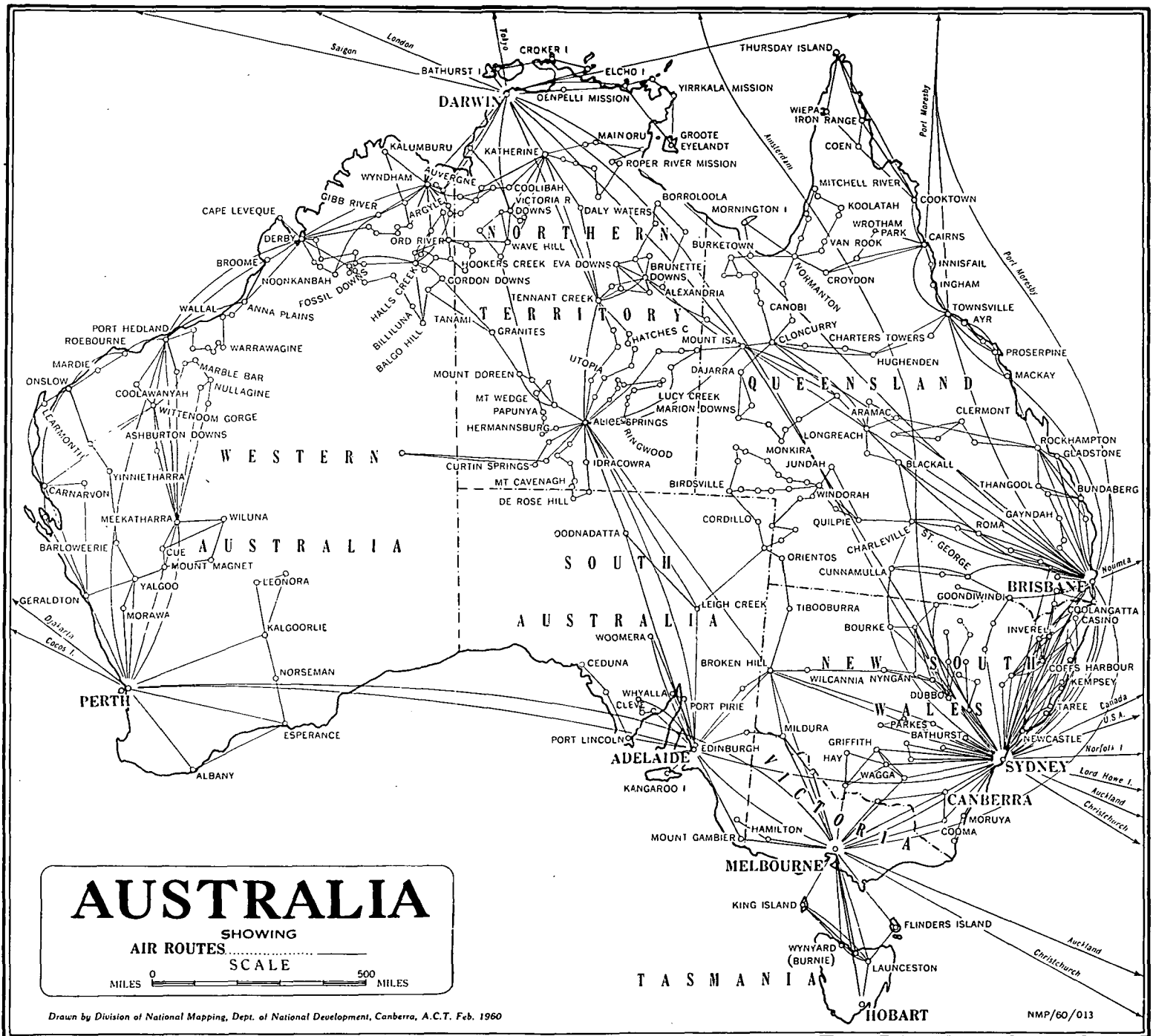
Sources.	N.S.W.	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postage	12,808	c10,706	4,177	2,745	1,924	806	33,166
Money order commission and poundage on postal notes ..	412	255	111	99	53	26	956
Private boxes and bags ..	90	59	46	30	21	12	258
Miscellaneous	1,202	1,003	351	249	160	85	3,050
Total, Postal ..	14,512	12,023	4,685	3,123	2,158	929	37,430
Telegraphs	2,055	1,639	1,150	711	579	186	6,320
Telephones	23,711	17,608	8,067	5,262	3,372	1,697	59,717
Grand Total ..	40,278	31,270	13,902	9,096	6,109	2,812	103,467

(a) The figures in this table relate to revenue actually collected during the year as recorded for Treasury purposes. (b) Includes Central Office collections. (c) Includes Central Office revenue from airmail services.

For each of the years 1954–55 to 1957–58 the gross revenue for Australia was £72,825,000, £79,341,000, £90,074,000 and £96,776,000 respectively.

Gross revenue for the year 1958–59 increased by 6.9 per cent. compared with that for the previous year. Revenue of the Postal, Telegraph and Telephone branches increased by 6.1 per cent., 2.5 per cent. and 7.9 per cent. respectively.

4. *Expenditure, Postmaster-General's Department.*—(i) *Distribution.* The following table shows, as far as possible, the distribution of expenditure (actual payments) in each State during 1958–59, as shown by records kept for Treasury purposes. The table must not be regarded as a statement of the working expenses of the Department since items relating to new works, interest, etc., are included therein.



**POSTMASTER-GENERAL'S DEPARTMENT: DISTRIBUTION OF
EXPENDITURE, 1958-59.(a)**

(£'000.)

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary	572	16,193	11,560	6,331	3,988	2,642	1,556	42,842
General expenses	82	1,961	1,311	510	418	291	156	4,729
Stores and material	33	902	654	360	285	186	88	2,508
Mail services	(b)4,450	1,709	875	873	457	252	125	8,741
Engineering services (other than capital works)	980	13,809	9,625	5,061	3,113	2,475	1,279	36,342
Other services	88	..	..	..	..	..	..	88
Total	6,205	34,574	24,025	13,135	8,261	5,846	3,204	95,250
Rent, repairs, maintenance .. ..	..	506	427	192	125	76	50	1,376
Proportion of audit expenses	4	19	14	8	5	3	2	55
Capital works and services—								
Telegraph and telephone	30	12,439	9,620	3,435	3,220	2,308	1,157	32,209
New buildings, etc. .. ..	..	1,241	1,102	700	595	339	167	4,144
Other expenditure, not allocated to States	(c)3,799	..	..	..	..	..	..	3,799
Grand Total	10,038	48,779	35,188	17,470	12,206	8,572	4,580	136,833

(a) The figures in this table represent actual payments made during the year as recorded for Treasury purposes.

(b) Expenditure on airmail services.

(c) Includes expenditure not apportioned to States, i.e., interest on loans, £798,000; sinking fund, £798,000; superannuation contributions, £2,179,000; transferred officers' pensions and allowances, £2,000; pensions and retiring allowances, £4,000 and pension supplements, £18,000.

(ii) *Totals.* Grand total expenditure for Australia for each of the years 1954-55 to 1957-58, respectively, were:—£103,586,000, £114,497,000, £121,917,000 and £131,263,000. Total expenditure increased by 4.2 per cent. during 1958-59, compared with that during 1957-58.

5. Profit or Loss, Postmaster-General's Department.—The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, are shown in the following table for the years 1954-55 to 1958-59.

POSTMASTER-GENERAL'S DEPARTMENT: PROFIT OR LOSS, BRANCHES.

(£'000.)

Branch.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Postal	— 2,254	— 2,402	— 1,526	— 1,954	— 851
Telegraph	— 800	— 1,202	— 638	— 330	— 42
Telephone	2,905	3,179	5,281	6,294	6,936
All Branches	— 149	— 425	3,117	4,010	6,043

NOTE.—Minus sign (—) indicates loss.

6. **Fixed Assets.**—(i) *Details, 1958–59.* The following table shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1958, to 30th June, 1959:—

POSTMASTER-GENERAL'S DEPARTMENT: FIXED ASSETS.

(£'000.)

Particulars.	Net Value 1st July, 1958.	Capital Expendi- ture, 1958–59.	Gross Value, 30th June, 1959.	Assets Dis- mantled or Written Off 1958–59.	Net Value, 30th June, 1959.
Telephone and telegraph plant ..	331,365	42,595	373,960	6,154	367,806
Mail-handling plant	477	245	722	2	720
Buildings	38,124	4,035	42,159	27	42,132
Motor vehicles	8,164	1,996	10,160	935	9,225
Assets subject to direct depreciation(a)	4,739	946	5,685	380	5,305
Other fixed assets	16,568	2,080	18,648	225	18,423
Total	399,437	51,897	451,334	7,723	443,611

(a) Includes postal service plant, miscellaneous plant, furniture and office equipment.

(ii) *Net Value.* The net value of the fixed assets of the Postmaster-General's Department at 30th June in each of the years 1955 to 1958, respectively, was:—£285,205,000, £319,691,000, £357,906,000 and £399,437,000.

§ 2. Posts.

1. **Postal Matter Dealt With.**—(i) *States, 1958–59.* The following table shows a summary of the postal matter dealt with, in each State, during the year 1958–59. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following table.

POSTAL MATTER DEALT WITH(a), 1958–59.

('000.)

State.	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)
	Posted for delivery within Australia.				Posted for delivery Overseas.			
New South Wales ..	556,235	109,413	6,804	5,037	23,787	9,592	428	616
Victoria	442,766	79,060	5,207	3,684	11,484	4,217	154	213
Queensland	197,927	28,796	2,608	1,873	6,100	1,341	47	28
South Australia ..	130,541	11,746	1,388	966	4,354	846	47	64
Western Australia ..	99,904	9,129	1,169	678	5,688	1,381	29	54
Tasmania	44,862	7,689	222	489	338	21	19	20
Australia ..	1,472,235	245,833	17,398	12,727	51,751	17,398	724	995
	Received from Overseas.				Total postal matter dealt with.			
New South Wales ..	44,482	29,669	369	1,072	624,504	148,674	7,601	6,725
Victoria	16,149	9,438	239	222	470,399	92,715	5,600	4,119
Queensland	4,017	4,721	59	65	208,044	34,858	2,714	1,966
South Australia ..	5,929	5,698	53	28	140,824	18,290	1,488	1,058
Western Australia ..	3,296	6,582	45	44	108,888	17,092	1,243	776
Tasmania	1,541	1,843	16	3	46,741	9,553	257	512
Australia ..	75,414	57,951	781	1,434	1,599,400	321,182	18,903	15,156

(a) See explanation above. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels.

(ii) *Australia.* The next table shows the total postal matter dealt with in Australia during each of the years 1954-55 to 1958-59.

TOTAL POSTAL MATTER DEALT WITH: AUSTRALIA.

Year.	Letters, Postcards and Letter-cards.		Newspapers and Packets.		Parcels.(a)		Registered Articles other than Parcels.	
	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.
1954-55 ..	1,344,642	147,922	274,158	30,160	16,765	1,844	17,628	1,939
1955-56 ..	1,414,222	151,811	291,048	31,243	17,334	1,861	18,376	1,973
1956-57 ..	1,443,337	151,372	306,417	32,136	16,998	1,783	17,007	1,784
1957-58 ..	1,538,509	157,865	323,684	33,213	17,726	1,819	15,566	1,597
1958-59 ..	1,599,400	160,702	321,182	32,271	18,903	1,899	15,156	1,523

(a) Includes registered, cash on delivery and duty parcels.

2. **Cash on Delivery Parcels Post.**—(i) *General.* The Postmaster-General's Department undertakes, upon prepayment of a prescribed commission, to deliver registered articles sent by parcels post within Australia, or between Australia and Lord Howe Island, Norfolk Island, Nauru, the Territory of Papua and New Guinea, or Fiji, to recover from the addressee on delivery a sum of money specified by the sender, and to remit the sum to the sender. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, and of traders and others who do not wish their goods to be delivered except on payment.

(ii) *States.* The next table shows particulars regarding the cash on delivery parcels posted in each State in 1958-59.

CASH ON DELIVERY PARCELS POST, 1958-59.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Parcels posted '000	299	100	124	44	40	2	609
Value .. £'000	1,134	362	418	168	134	8	2,224
Revenue(a) £'000	96	35	36	15	11	1	194

(a) From commission and postage.

(iii) *Australia.* In the following table particulars of cash on delivery parcels posted in Australia are shown for the years 1954-55 to 1958-59.

CASH ON DELIVERY PARCELS POST: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Parcels posted .. '000	845	762	672	624	609
Value £'000	2,804	2,526	2,289	2,222	2,224
Revenue(a) £'000	225	206	215	200	194

(a) From commission and postage.

3. **Total Cost of Carriage of Mails.**—During 1958-59, the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows:—road (including departmental transport) £3,668,000; railway £1,405,000; sea £185,000; air—internal £717,000, oversea £3,742,000; Grand Total £9,717,000.

4. **Transactions of the Dead Letter Offices.**—During the year 1958–59, 1,491,000 letters were returned to senders or delivered, 348,000 were destroyed in accordance with the Act, and 199,000 were returned to other countries as unclaimed—a total of 2,038,000. Corresponding particulars for packets were—512,000, 265,000, 33,000 and 810,000. There were 2,848,000 articles handled in all.

5. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74–79 of the Post and Telegraph Act 1901–1950. The maximum amount for which a single money order payable within Australia may be obtained is £40, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent to any person in the dollar area is £A.5 a month and for remittances to countries outside the dollar area, £A.10 a week. A postal note cannot be issued for a sum larger than twenty shillings.

(ii) *States.* Particulars regarding the business transactions in each State for the year 1958–59 are shown hereunder:—

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, 1958-59.
(£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Money Orders—							
Issued	44,617	20,254	9,870	6,118	4,017	2,158	87,034
Paid	45,085	20,671	9,436	5,751	3,920	1,832	86,695
Net Commission							
Received ..	300	165	78	47	35	18	643
Postal Notes—							
Issued	3,678	2,277	901	1,236	556	197	8,845
Poundage Received..	140	91	33	53	22	8	347

(iii) *Australia.* The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1954–55 to 1958–59.

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	'000.	£'000.	'000.	£'000.	'000.	£'000.	'000.	£'000.
1954–55 ..	6,755	61,699	6,617	61,262	21,816	10,226	21,867	10,249
1955–56 ..	7,638	70,220	7,337	69,585	23,128	10,450	23,066	10,464
1956–57 ..	8,127	74,542	7,841	73,798	20,332	9,493	20,778	9,709
1957–58 ..	8,668	78,411	8,305	78,918	18,937	9,155	18,415	8,953
1958–59 ..	9,420	87,034	9,155	86,695	18,012	8,845	17,888	8,754

(iv) *Classification of Money Orders Issued and Paid.* Of the total money orders issued in Australia during 1958–59, 9,033,000 valued at £85,783,000 were payable in Australia and 387,000 valued at £1,251,000 were payable overseas. Of the total money orders paid in Australia during 1958–59, 9,018,000 (£85,906,000) were issued in Australia and 137,000 (£789,000) were issued overseas.

(v) *Postal Notes Paid.* The following table shows the number and value of postal notes paid in each State during the year 1958–59. The number and value of postal notes issued and paid in each of the years 1954–55 to 1958–59 have been given in the previous table.

POSTAL NOTES PAID: STATE OF ISSUE, 1958-59.

Issued in—	Paid in—						
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Same State	'000 5,967	4,008	1,301	828	682	241	13,027
	£'000 3,075	1,881	665	480	368	111	6,580
Other States	'000 1,413	2,125	810	84	166	263	4,861
	£'000 645	846	471	43	51	118	2,174
Total	'000 7,380	6,133	2,111	912	848	504	17,888
	£'000 3,720	2,727	1,136	523	419	229	8,754

§ 3. Telegraphs.

1. General.—A review of the development of telegraph services in Australia up to 1921 appeared in Official Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. During the past few years substantial improvements in both the speed and grade of telegraph services throughout Australia have been effected, the entire system being subjected to intensive re-organization. A new teleprinter reperforator switching system (TRESS) which eliminates the use of morse, was inaugurated in the telegraph service. The system is now operating in all mainland States and its extension to Tasmania is planned.

Telephone subscribers may telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the year 1958-59 was about 8.7 million, or approximately 39 per cent. of the total lodgments. The number of telegrams telephoned to subscribers totalled 4.6 million.

A radiogram service is provided to certain isolated places throughout Australia and a number of privately-operated wireless transceiver stations have been established at various centres throughout the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. Stations sponsored by the Royal Flying Doctor Service of Australia can communicate by wireless with base stations.

A picturegram service is provided at the capital cities of the States and certain country centres. The equipment at these points permits the direct transmission and reception of overseas photo-telegrams. In 1958-59, 6,633 picturegrams were lodged for destinations within Australia, 1,137 photo-telegrams were transmitted to overseas destinations and 6,881 were received from other countries.

The teleprinter exchange service (Telex) was introduced in Australia in September 1954 for use by subscribers between Sydney and Melbourne. The service has expanded quickly and is now firmly established in all capital cities including Canberra and 32 provincial centres. At the end of June, 1959 there were 502 private subscribers connected to the service throughout Australia.

The telex service is, in most respects, similar to the telephone service except that communications are exchanged on a printed word basis instead of speech. Special services provided for telex subscribers include, trunk and local calls, particular person calls, fixed time calls and conference and broadcast calls.

In addition to direct subscriber-to-subscriber communication, the telex service provides facilities which enable subscribers to lodge or receive telegrams through the Printergram Section at the local Telegraph Office. Moreover, Melbourne and Sydney subscribers may lodge their overseas telegrams direct with the offices of the Overseas Telecommunications Commission (Aust.) in those cities.

During the year 1958-59, 228,861 telex trunk calls were exchanged. In the same period subscribers lodged 704,347 telegrams and had 1,021,855 telegrams transmitted direct to their premises by means of the printergram facility.

The international telex service was inaugurated in Australia in October, 1958 with initial services to the United Kingdom, United States of America, Canada and Japan. The service has expanded rapidly and is now available to 28 countries.

During the 8 months ended 30th June, 1959, a total of 21,101 international telex calls, 9,958 originating and 11,143 terminating, was exchanged with overseas countries.

As distinct from telex subscribers, there were 1,032 leased private-wire teleprinter services in operation at the close of business 1958–59. These services are exclusive teleprinter channels leased on a full-time or part-time basis for use between points in the same area or long distance. Some services comprise networks embracing points in all States.

2. Telegraph and Telephone Mileage.—At 30th June, 1959, the combined single-wire mileages for both telegraph and telephone purposes were:—aerial, underground and submarine cables—7,819,000 miles, trunk telephone and telegraph 262,000 miles; aerial wires—telephone trunk and/or telegraph purposes 577,000 miles, exchange and non-exchange service lines 754,000 miles. The mileages of conduits and pole routes were 12,500 duct miles and 121,000 miles respectively. Conduits include only ducts and conduits with an internal diameter of 2 inches or over. Those with a diameter of less than 2 inches are not recorded separately and are included with underground cables. The mileages in each State at 30th June, 1959 may be found in *Transport and Communication*, Bulletin No. 50.

Joint use is now made of poles for power and telephone reticulation; this scheme operates extensively throughout the United States of America and Canada.

3. Telegraph Offices.—(i) *States.* The numbers of telegraph offices, including railway telegraph offices, in the various States at 30th June, 1959 were:—New South Wales, 3,042; Victoria, 2,320; Queensland, 1,777; South Australia, 979; Western Australia, 967; Tasmania, 570.

(ii) *Australia.* The numbers of telegraph offices in Australia at 30th June of each of the years 1955 to 1959 respectively were:—9,907, 9,896, 9,934, 9,708 and 9,655.

4. Telegrams Dispatched within Australia.—(i) *States.* The following table shows the number of telegrams dispatched to places within the Commonwealth and to adjacent islands and to ships at sea, according to the class of message transmitted:—

TELEGRAMS DISPATCHED, 1958-59.
(‘000.)

State.	Paid and Collect.							Unpaid (Ser- vice).	Total Tele- grams.
	Ordin- ary.	Meteor- ological.	Urgent.	Radio- grams.	Press.	Letter- grams.	Total.		
New South Wales	6,394	206	305	74	58	22	7,059	257	7,316
Victoria ..	3,869	127	163	6	17	17	4,199	148	4,347
Queensland ..	3,390	199	117	51	35	14	3,806	157	3,963
South Australia	1,531	93	46	42	23	15	1,750	46	1,796
Western Australia	1,460	140	43	69	17	19	1,748	48	1,796
Tasmania ..	445	43	16	2	5	7	519	26	545
Australia ..	17,090	808	690	244	155	94	19,081	682	19,763

(ii) *Australia.* Telegrams dispatched to destinations within Australia and to adjacent islands and to ships at sea, during each of the years 1954–55 to 1957–58 respectively, numbered:—22,713,000, 22,600,000, 21,144,000 and 20,107,000.

§ 4. Telephones.

1. General.—Particulars of the total mileage of lines used exclusively for telephone purposes are not available, but are combined with all other line mileage. Particulars of the total single wire mileage used for telephone, trunk and/or telegraph purposes are shown in § 3, para. 2, above.

During 1958-59, 140,176 telephone subscribers' lines and 208,259 telephones were added to the system, compared with 139,107 lines and 205,861 telephones in 1957-58. As 8,139 of the subscribers' lines installed in 1958-59 were duplex services, the increase in telephone services was 148,315. With an average at 30th June, 1959, of twenty telephones to every 100 persons, Australia had a telephone density exceeded by that of only three of those countries with 2 million or more telephones. The trunk line network was increased by 98,163 channel miles and at 30th June, 1959 had reached 1,162,807 miles; 81,206 additional channel miles were obtained by the installation of carrier-wave equipment, some of which was installed on radio-telephone bearers. Carrier-wave facilities enable several speech paths to be obtained from one pair of wires or, in the case of radio-telephone systems, without wires at all, and are designed to transmit the voice with greater fidelity than the wire pairs on which they are based. An alternative aerial route between Sydney-Melbourne-Adelaide has been completed and provides a direct route for traffic from Sydney to Adelaide and Perth. Additional trunk line channels are being provided between Tasmania and the mainland. A new pair of wires has been erected between Marree and Alice Springs to be used as a bearer for a twelve-channel system between Adelaide and Alice Springs.

Eight automatic exchanges were brought into operation in metropolitan areas during the year, together with 24 country and 123 (net) rural automatic exchanges. At 30th June, 1959, there were 306 automatic exchanges in the metropolitan areas and 1,342 in country districts, to which 1,553,000 telephones were connected, representing 76 per cent. of the total number in use in Australia.

The development of transit trunk switching was advanced by the installation at a number of exchanges of through trunk switching equipment which enables calls to be routed automatically through major provincial and capital city switching points. This is part of a master plan for the long range development of the telephone system, which envisages a completely automatic network with the connexion of calls, both local and trunk, under the direct control of the subscriber and known as Subscriber Trunk Dialling. Manual trunk service would be available for special calls.

The first of several subscribers' radio-telephone networks, planned for outback areas, was brought into service in the Broken Hill district in April, 1958. The transmitter-receiver and aerial equipment are leased to subscribers and the base station operates from the post office, where the radio-telephone network connects with the Commonwealth telephone system.

An automatic weather forecast system was introduced at Melbourne in October, 1957 and similar equipment was introduced at Brisbane in February, 1959, and at Sydney, Adelaide, Perth and Hobart in March, 1959.

2. Summary.—Particulars relating to the telephone services in each State at 30th June, 1959 are shown in the following table:—

TELEPHONE SERVICES: SUMMARY, 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Exchanges	2,278	1,794	1,358	725	771	400	7,326
Telephone offices (including ex- changes)	3,451	2,861	1,945	1,171	1,111	545	11,084
Lines connected '000	544	451	192	129	83	44	1,443
Instruments connected '000	795	647	256	182	116	60	2,056
(i) Subscribers' instruments '000	778	634	249	177	112	58	2,008
(ii) Public telephones '000	8.4	5.9	3.6	1.9	1.5	1.0	22.3
(iii) Other local instruments '000	8.3	7.4	3.9	3.0	2.3	1.3	26.2
Instruments per 1,000 of population	209	230	178	193	161	175	204

Of the total telephones (2,056,447) in service at 30th June, 1959, 749,624 or 36 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks.

3. **Calling Rates, Trunk Line and Local Calls.**—Short distance trunk line calls are now being recorded on subscribers meters and precise statistics distinguishing between local and trunk line calls are therefore not available. Statistics for the year 1957–58 may be found in Official Year Book No. 45, page 558.

4. **Oversea Telephone Services.**—During the year 1958–59, radio-telephone services were established between Australia and the Sudan, bringing the number of countries with which radio-telephone communication is available to 99. Arrangements were made for calls to and from Scotts Base, Antarctica, to be switched via New Zealand. A direct service was established with Japan in March, 1958 to replace the link via Hong Kong. Service is also provided to certain trans-Atlantic liners, ships off the Australian coast, H.M.A. ships, and H.M.N.Z. ships when cruising in Australian waters.

The amount of traffic handled over the radio-telephone services increased by 16 per cent. over that handled in 1957–58. During 1958–59 the number of calls connected was 91,986, comprising 46,722 originating in Australia and 45,264 incoming calls.

5. **Revenue from Telephones.**—Particulars regarding the revenue from telephone services are included in tables in § 1. (*see pp. 558 and 561*).

6. **World Telephone Statistics, 1959.**—The following table shows the number of telephones in use in various countries with 2 million or more telephones at 1st January, 1959 together with the number per 100 of population and the proportion in each country to the world total.

WORLD TELEPHONE STATISTICS(a) AT 1st JANUARY, 1959.

Country.					Number of Telephones. '000.	Telephones per 100 of Population.	Proportion of Total. (Per cent.)
United States of America(b)	..	..	..	..	66,645	38	53.4
United Kingdom(c)	..	..	..	..	7,525	15	6.0
Canada	..	..	..	..	5,122	30	4.1
Germany, Federal Republic of	..	..	..	..	5,090	9	4.1
Japan(c)	..	..	..	..	4,335	5	3.5
France	..	..	..	..	3,704	8	3.0
U.S.S.R.	..	..	..	..	3,700	2	3.0
Italy	..	..	..	..	3,182	6	2.5
Sweden	..	..	..	..	2,526	34	2.0
Australia	..	..	..	..	2,000	20	1.6
Other	..	..	..	..	20,971	(d)	16.8
Total					124,800	(d)	100.0

(a) Partly estimated. Information derived, in the main, from the "Worlds Telephones" compiled by the American Telephone and Telegraph Company. (b) Excludes Alaska and Hawaii. (c) At 31st March, 1959. (d) Not available.

§ 5. Cable and Radio Communication.

1. **General.**—Descriptions of the various cable services between Australia and other countries were given in Official Year Book No. 22, pages 335–6 and earlier issues.

Competition from beam wireless services brought about a merger between cable and wireless interests, which was not, however, completely satisfactory in combining the advantages of both systems. Details of the merger, and of subsequent developments which led eventually to the establishment, in 1946, of the Overseas Telecommunications Commission, were published in Official Year Book No. 37, pages 220–4.

2. Oversea Cable and Radio Traffic.—(i) *States.* The number of telegrams received from and dispatched overseas in each State during 1958–59 is shown hereunder:—

INTERNATIONAL TELEGRAMS, 1958-59.
(‘000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Received	685	427	77	63	88	(a) 20	1,360
Dispatched	653	465	90	82	76	20	1,386
Total	1,338	892	167	145	164	40	2,746

(a) Estimated.

(ii) *Australia.* (a) *Number of Telegrams.* The following table shows the number of international telegrams received from and dispatched overseas during the years 1954–55 to 1958–59:—

INTERNATIONAL TELEGRAMS: AUSTRALIA.
(‘000.)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Received	1,422	1,441	1,454	1,430	1,360
Dispatched	1,376	1,374	1,367	1,347	1,386
Total	2,798	2,815	2,821	2,777	2,746

(b) *Number of Words.* Particulars of the international business, originating and terminating in Australia, transacted over the cable and radio services, during 1958–59 are shown in the following table:—

INTERNATIONAL TELEGRAMS: NUMBER OF WORDS, AUSTRALIA, 1958-59.
(‘000 Words.)

Class of Telegram.	Words Transmitted to—			Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary	4,497	8,148	12,645	3,892	6,690	10,582
Letter	4,749	10,255	15,004	4,474	8,358	12,832
Press	4,676	1,898	6,574	8,463	2,678	11,141
Government	256	965	1,221	1,069	1,375	2,444
Greetings	792	680	1,472	630	795	1,425
Other .. ..	..	11	11	..	61	61
Total	14,970	21,957	36,927	18,528	19,957	38,485

Words transmitted to “Other places” included 3,897,594 to the United States of America and 3,896,306 to New Zealand and the Pacific Islands. Words received from “Other places” included 3,544,026 from the United States of America and 4,780,712 from New Zealand and the Pacific Islands.

3. **Coast Stations.**—At 30th June, 1959, there were 79 radio stations established at points around the Australian coast and 14 about the coast of Papua and New Guinea and other External Territories. During the year ended 31st March, 1959, these stations handled 675,582 messages (570,777 paying, 16,024 free traffic and 88,781 meteorological) with a total of 14,739,530 words.

4. **Radio-communication Stations Authorized.**—(i) *States and Territories, 30th June, 1959.* The following table shows particulars of the different classes of radio-communication stations authorized in Australia and the External Territories at 30th June, 1959. Figures relate to radio-communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 572 and 577.

Owing to the use of a new classification, some of the figures in the table below are not comparable with those published in issues of the Official Year Book prior to No. 44.

RADIO-COMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1959.

Class of Station.	N.S.W.	Vic.	Old.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	Ext. Terr.	Grand Total.
TRANSMITTING AND RECEIVING.											
Fixed(a)—											
Aeronautical(a)	27	7	14	7	14	6	7	1	83	25	108
Services with other Countries ..	52	15	..	..	9	..	..	..	76	12	88
Outpost(b)	185	..	368	123	304	16	151	..	1,147	360	1,507
Other	257	132	128	51	56	27	19	..	670	72	742
Land(c)—											
Aeronautical	20	10	18	7	13	8	5	1	82	16	98
Base—											
Land Mobile Services ..	788	588	339	231	126	81	13	14	2,180	8	2,188
Harbour Mobile Services ..	19	10	9	5	28	..	..	..	71	..	71
Coast(d)	18	10	11	9	11	19	1	..	79	14	93
Special Experimental ..	53	35	9	16	17	9	..	..	139	8	147
Mobile(e)—											
Aeronautical .. ..	..	..	..	..	..	..	..	..	(f) 444	..	444
Land Mobile Services ..	7,975	5,109	2,655	2,094	1,246	447	73	258	19,857	56	19,913
Harbour Mobile Services ..	135	92	27	32	54	3	..	..	343	18	361
Outpost .. ..	..	..	..	..	..	..	..	..	(f) 825	34	859
Ship .. ..	..	..	..	..	..	..	..	..	f 1,994	137	2,131
Amateur	1,265	1,217	419	448	253	131	10	27	3,770	75	3,845
<i>Total</i>	10,794	7,225	3,997	3,023	2,131	747	279	301	(g) 31,760	835	(g) 32,595

RECEIVING ONLY.

Fixed(a)	79	189	63	7	36	1	4	..	379	..	379
Land(c) .. ..	..	..	..	..	..	..	..	..	..	..	..
Mobile(e)	1	34	20	..	..	..	..	..	55	..	55
<i>Total</i>	80	223	83	7	36	1	4	..	434	..	434

TOTAL STATIONS AUTHORIZED.

Grand Total	10,874	7,448	4,080	3,030	2,167	748	283	301	(g) 32,194	835	(g) 33,029
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(a) Stations established at fixed locations for communication with other stations similarly established. (b) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service. (c) Stations established at fixed locations for communication with mobile stations. (d) Land stations for communication with ocean-going vessels. (e) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ship) and mobile equipment of organizations such as the Royal Flying Doctor Service. (f) Stations which cannot be classified according to States, etc. (g) Includes 3,263 mobile transmitting and receiving stations, which cannot be classified according to States, etc.

(ii) *Australia and External Territories, 30th June, 1955 to 1959.* The number of radio-communication stations authorized in Australia and the External Territories at 30th June, 1955 to 1959 is shown in the following table.

RADIO-COMMUNICATION STATIONS AUTHORIZED; AUSTRALIA AND EXTERNAL TERRITORIES.

Stations in—	At 30th June—				
	1955.	1956.	1957.	1958.	1959.
Australia	15,808	19,778	23,227	27,305	32,194
External Territories ..	421	456	642	760	835
Total Stations ..	16,229	20,234	23,869	28,065	33,029

B. BROADCASTING AND TELEVISION.

§ 1. Introduction.

1. **General.**—Broadcasting and television services in Australia operate under the Broadcasting and Television Act 1942–1956 and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board (*see* para. 2 below). Details of each service will be found on pages 572–8.

Licence fees for commercial broadcasting and television stations are payable under the Broadcasting and Television Stations Licence Fees Act 1956.

2. **The Australian Broadcasting Control Board.**—The Board, which was constituted on 15th March, 1949, operates under the Ministerial jurisdiction of the Postmaster-General, and its principal functions, as set out in section 16 of the Broadcasting and Television Act 1942–1956, are to ensure:—(a) that services by broadcasting stations and television stations are provided in accordance with plans prepared from time to time by the Board and approved by the Minister; (b) that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate; and (c) that adequate and comprehensive programmes are provided by the stations to serve the best interests of the general public.

In addition, the Board may exercise such other functions as are prescribed in relation to broadcasting stations and television stations.

The Board is empowered to make recommendations to the Minister as to the exercise by the Minister of any power under Part IV. of the Act which relates to the Commercial Broadcasting Service.

The Board has power, subject to the direction of the Minister:—(a) to determine the situation and operating power of a broadcasting or television station; (b) to determine the frequencies of broadcasting and television stations within bands of frequencies notified to the Board by the Postmaster-General as being available; (c) to regulate the establishment and operation of networks of commercial broadcasting or television stations and the making of arrangements by licensees for the provision of programmes or the broadcasting or televising of advertisements.

The Board also has power:—(a) to determine the conditions subject to which advertisements may be broadcast or televised by licensees; (b) to determine the hours during which programmes may be broadcast or televised; and (c) to conduct examinations as to the competency of persons to operate the technical equipment of broadcasting and television stations and to charge appropriate fees.

The Board is obliged to hold public inquiries into applications, made to the Minister, for licences for commercial broadcasting and television stations in areas for which the Minister proposes to grant licences and into any other matter within its functions if the Board thinks it necessary or desirable, or the Minister so directs. The Board, in exercising its powers and functions in relation to commercial broadcasting and television stations, is obliged to consult representatives of those stations.

Subject to the approval of the Minister and of the Treasurer, the Board may provide financial and other assistance to commercial broadcasting stations for the purpose of ensuring that programmes of adequate extent, standard and variety are provided in the areas served by these stations.

Section 8 of the Act provides that the Board shall consist of five members (including two part-time members) appointed by the Governor-General, one of whom, other than a part-time member, shall be chairman. No person shall be appointed as a member of the Board who:—(a) has any financial interest whether direct or indirect, in any company which is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station or manufactures or deals in equipment for the transmission or reception of broadcasting or television programmes; (b) is a member of the governing body of any company or other association of persons which is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station; or (c) is the licensee of, or an applicant for a licence for, a commercial broadcasting or television station.

3. The Australian Broadcasting Commission.—The Broadcasting and Television Act 1942–1956, provides that the Australian Broadcasting Commission, which consists of seven members, one of whom shall be a woman, shall control the activities of the National Broadcasting Service and the National Television Service.

Under the provisions of the Act the Commission shall provide, and shall broadcast or televise from transmitting stations made available by the Postmaster-General, adequate and comprehensive programmes and shall take in the interests of the community all such measures as, in the opinion of the Commission, are conducive to the full development of suitable broadcasting and television programmes.

The Commission prepares estimates of its receipts and expenditure for each financial year and submits these estimates to the Minister. Appropriations are made by Parliament for the purposes of the Commission and these, together with all other moneys received by the Commission, are paid into an account in the Commonwealth Bank of Australia. From this account are defrayed all costs, charges, expenses, etc., incurred by the Commission in the exercise of its powers and functions under the Act. For particulars of the financial operations of the Commission see Chapter XXI.—Public Finance.

§ 2. Broadcasting.

1. Broadcasting Stations.—The following table shows the number of broadcasting stations in operation at 30th June, 1959:—

BROADCASTING STATIONS, 30th JUNE, 1959.

Type of Station.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Papua and New Guinea.	Total.
National—										
Medium Frequency ..	16	5	12	8	7	4	2	2	1	57
High Frequency ..	1	3	2	..	2	..	..	..	1	9
Commercial ..	37	20	20	8	14	8	..	1	..	108

2. The National Broadcasting Service.—(i) *General.* In sound broadcasting, the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission and the provision and operation of transmitters and technical facilities in the studios are the responsibility of the Postmaster-General's Department.

(ii) *Technical Facilities.* At 30th June, 1959, the National Broadcasting Service comprised 66 transmitting stations, as follows:—

Medium-frequency Stations—

New South Wales—

2BL and 2FC Sydney, 2BA Bega, 2CO Albury, 2CR Orange, 2GL Glen Innes, 2KP Kempsey, 2LG Lithgow, 2ML Murwillumbah, 2NA and 2NC Newcastle, 2NB Broken Hill, 2NR Grafton, 2NU Tamworth, 2TR Taree, 2WN Wollongong

Victoria—

3AR and 3LO Melbourne, 3GI Sale, 3WL Warrnambool, 3WV Horsham.

Queensland—

4QG and 4QR Brisbane, 4AT Atherton, 4GM Gympie, 4QA Mackay, 4QB Maryborough, 4QL Longreach, 4QN Townsville, 4QS Toowoomba, 4QY Cairns, 4RK Rockhampton, 4SO Southport.

South Australia—

5AN and 5CL Adelaide, 5CK Port Pirie, 5LN Port Lincoln, 5MG Mt. Gambier, 5MV Renmark, 5PA Penola, 5WM Woomera.

Western Australia—

6WF and 6WN Perth, 6AL Albany, 6GF Kalgoorlie, 6GN Geraldton, 6NM Northam, 6WA Wagin.

Tasmania—

7ZL and 7ZR Hobart, 7NT Launceston, 7QN Queenstown.

Northern Territory—

5AL Alice Springs, 5DR Darwin.

Australian Capital Territory—

2CN and 2CY Canberra.

Papua—

9PA Port Moresby.

High-frequency Stations—

VLI Sydney, New South Wales, VLG, VLH and VLR Lyndhurst, Victoria, VLM and VLQ Brisbane, Queensland, VLW and VLX Perth, Western Australia, VLT Port Moresby, Papua.

The medium-frequency transmitters operate in the broadcast band 540 to 1,600 kilocycles per second. The high-frequency stations, using frequencies within the band 3 to 30 megacycles per second, provide service to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland and in Papua and New Guinea and adjacent islands.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilized to link national broadcasting stations in the capital cities of Australia and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

In June, 1959, 44 of the medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

(iii) *Programme Facilities.* (a) *General.* The programmes of the Australian Broadcasting Commission cover a wide range of activities, which are indicated briefly in the following paragraphs. The proportion of broadcasting time allocated to the various types of programme during 1958–59 was as follows:—Classical Music, 23.2 per cent.; Light Music, 12.0 per cent.; Variety, 21.2 per cent.; News, 7.1 per cent.; Talks, 7.1 per cent.; Sport, 5.6 per cent.; Drama and Features, 4.1 per cent.; Youth Education, 3.7 per cent.; Religion, 3.3 per cent.; Parliament, 3.3 per cent.; Children's Session, 2.5 per cent.; Rural Broadcasts, 1.7 per cent.; Non-departmental, 5.2 per cent.

(b) *Music.* The A.B.C., in addition to its extensive activities in the field of musical broadcasting, is one of the largest concert-giving organizations in the world. During the years of the Commission's existence, there has been an immense growth of interest in fine music. Today the regular broadcasts command a large listening audience and the number of subscribers to A.B.C. public concerts exceeds 50,000. This vigorous musical life is typified in the activities of the symphony orchestras in Sydney, Melbourne, Brisbane, Adelaide, Perth

and Hobart. These have developed from the studio broadcasting orchestras set up in 1936 in the six capital cities to bodies whose present standard compares favourably with that of orchestras in overseas musical centres of similar size. Until 1946, these orchestras were maintained solely by the A.B.C., but since then they have been subsidized by State Governments and major municipal bodies.

In 1958–59, the A.B.C. organized 576 public orchestral concerts (including 182 free concerts for school children and 35 free concerts for adults) and 192 public recitals by famous artists throughout the Commonwealth. Of these concerts, 270 were given outside the State capitals, including 73 free orchestral concerts for school children.

The policy of the A.B.C. has been to foster the highest standards of musical appreciation and performance, making the utmost use of the best local talent and at the same time giving Australian audiences the opportunity of hearing leading artists from overseas.

(c) *Drama and Features.* Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the world's great plays as well as adaptations of the best modern stage plays and also those written specially for broadcasting. The main regular drama programmes are broadcast on Sunday afternoons and Sunday and Monday evenings, and special series of longer plays are also given at various times.

In recent years the technique of the feature programme has also been developed. The feature is a form of entertainment which is unique to radio, consisting of specially written programmes designed to present information in an interesting way. It may deal with a very wide variety of subjects ranging from history and current events to science and the arts. A number of Australian writers have become interested in this form of entertainment and about 97 per cent. of the features broadcast are written by Australians. Local writers also contribute a large proportion of the plays broadcast and every effort is made to assist and encourage their work.

(d) *Youth Education.* The A.B.C. provides a regular series of broadcasts to schools as an addition to normal class-room education. The total number of listening schools at the end of June, 1959 was 9,500 or about 93 per cent. of all schools, State and private, throughout the Commonwealth. Many of the school broadcasts are presented in dramatized form, as this method makes the material more vivid and interesting to the young listener. For the very young children, the Commission broadcasts every week-day the "Kindergarten of the Air", a type of broadcast which originated in Australia. (*See also* Chapter XV.—Education, on this subject.)

(e) *Talks.* The aim of the Talks Department is to provide programmes which will keep the listener well informed on current affairs and on general topics. Many of the talks in the first category are now presented in a magazine type of session consisting of a number of short items linked by a narrator. An extension of this type of programme is the documentary, in which radio goes into the field to analyse or to describe, using the actual sounds and voices recorded on location.

Major controversial topics are covered in the "Nation's Forum of the Air" (using the debating technique) and "I Put it to You", in which a well-known speaker presents a contentious theme before an audience chosen because it will generally be critical and afterwards the speaker must stand up to questioning by the audience. Another outstanding session is "News Review", containing comments on the news of the day recorded over landline from all States of the Commonwealth and, in the case of significant world events, from overseas by radio-telephone.

(f) *Rural Broadcasts.* The Rural Broadcasts Department devotes its programmes to weather and market reports and talks, interviews, etc., designed to provide useful information for the man on the land. These programmes are presented on a regional, State and national basis, many being directed to particular districts, because of the diversity of climate and conditions. Separate rural programmes originate at 18 regional stations and are relayed to all other regionals. Other programmes are broadcast throughout each State or on a national relay, depending on whether the information they contain is of general interest or refers only to the rural industries of one State.

Material for rural programmes is obtained from many sources in Australia, including the Departments of Agriculture, numerous government and private organizations and practical farmers. Talks, interviews, etc., are also secured from many overseas sources, thus bringing to rural listeners the latest information on overseas research that is relevant to Australia's primary industries. Programme material is exchanged regularly with British Commonwealth countries and with the U.S.A. and a number of officers from the broadcasting organizations

of South-East Asia have come to Australia, under the Colombo Plan and similar projects, to study A.B.C. rural broadcasting, with the aim of developing services of this type in their own countries.

During 1958–59, 6,674 talks and interviews on rural topics were broadcast by the A.B.C., as well as 9,300 weather reports and 10,466 interstate and local market reports. In times of emergency, the regular weather reports are supplemented by special services giving flood or fire warnings—a very important service because of the speed with which radio can reach a widely scattered audience.

(g) *News.* On 1st June, 1947, the Australian Broadcasting Commission's independent news service came into full operation. Since that date the Commission has collected all its Australian (including Papua and New Guinea) news through its own staff journalists and part-time correspondents. It also maintains a news room in London for the selection and transmission of news obtained from major overseas agencies and has special representatives in South-East Asia. Regional bulletins are broadcast from country centres and also from capital cities to cover near-city districts. Radio Australia (the Overseas Service of the A.B.C.) broadcasts Australian and overseas news daily in English, French, Mandarin, Indonesian and Thai, with special attention to Asia and the Pacific. Each day the A.B.C. re-broadcasts two news bulletins from the British Broadcasting Corporation. The A.B.C. broadcasts 150 news bulletins each day, including those given over Radio Australia.

(h) *Other Activities.* The broadcasting of the proceedings of Federal Parliament commenced as a regular service in July, 1946. At present, these broadcasts are confined to one of the two national transmitters in each capital city, one in Newcastle and to one domestic short-wave station (VLR).

The National Children's Hour, presented seven days a week, is composed of over 40 programme items, including stories, music, games, art, literature, natural history and sport. There is a children's newsreel and a Brains Trust, discussing, through children, topics of wide general interest. The Argonauts' Club is an important part of the session and encourages children between the ages of 7 and 17 in self-expression and the appreciation of cultural subjects, but the provision of entertainment suitable for children is the main purpose of the session.

In co-operation with the various religious denominations, the A.B.C. broadcasts several religious sessions each week-day in addition to those given on Sundays. These religious broadcasts include relays of normal church services and a variety of special programmes of talks and sacred music. The modern trend towards the use of religious drama is also followed.

The variety and sporting programmes of the A.B.C. provide the lighter side of the service. In its variety sessions the A.B.C. does everything possible to assist local artists in order to increase the amount of first-class talent in this country, and encouragement is also given to Australian composers of light music. The A.B.C. dance bands in Sydney and Melbourne are regarded as being two of the most outstanding bands in Australia.

The coverage of sport at home and abroad by the A.B.C. is comprehensive. On Saturday afternoons the sporting panel provides listeners with progress results, scores and descriptions from half a dozen or more fields of sport. Events of international interest such as Test matches, the Davis Cup, etc., are covered by simultaneous descriptions from A.B.C. commentators. In covering events overseas, the A.B.C. is indebted to the B.B.C. for its collaboration in Great Britain, to the New Zealand Broadcasting Service for events in New Zealand and to broadcasting organizations in many other countries.

3. The Commercial Broadcasting Service.—Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is £25 on the grant of the licence, and thereafter £25 a year plus one per cent. of the gross earnings of the station from the broadcasting of advertisements or other matter during the preceding financial year. Licensees of these stations rely for their income on the broadcasting of advertisements and other publicity.

At 30th June, 1959, there were 108 commercial broadcasting stations in operation. A table showing the call sign, location, frequency and aerial power of each commercial broadcasting station licensed at 30th June, 1959, may be found in *Transport and Communication*, Bulletin No. 50.

4. Overseas Broadcasting Service.—There are three high-frequency stations at Shepparton, Victoria (VLA, VLB, VLC) which provide the overseas service known as "Radio Australia". As in the case of the National Broadcasting Service, these stations are

maintained and operated by the Postmaster-General's Department and their programmes are arranged by the A.B.C. During certain periods, station VLG Lyndhurst is also used for the purpose of overseas transmission. The programmes, which give news and information about Australia, presented objectively, as well as entertainment, are directed mainly to South-East Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

§ 3. Television.

1. **General.**—Television services in Australia operate under the Broadcasting and Television Act 1942–1956 and comprise the National Television Service and the Commercial Television Service.

2. **The National Television Service.**—(i) *General.* The A.B.C. provides the programmes for the National Television Service from stations provided and operated by the Postmaster-General. Three stations have been established ABN Sydney, ABV Melbourne and ABQ Brisbane, each of which operates on Channel 2. ABN commenced operation on 5th November, 1956; ABV 18th November, 1956 and ABQ 2nd November, 1959. Each station operates on a frequency of 64.25 megacycles a second for vision and 69.75 megacycles a second for sound. National stations ABS Adelaide, ABW Perth and ABT Hobart are in the course of construction.

(ii) *Programme Facilities.* (a) *General.* The television programmes provided by the A.B.C. cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30th June, 1959 was as follows:—Talks Department, 18.8 per cent.; Drama and Features, 24.6 per cent.; Sport, 12.5 per cent.; Variety, 8.4 per cent.; Children's Session 8.9 per cent.; News, 6.4 per cent.; Classical Music, 1.7 per cent.; Light Music, 0.4 per cent.; Rural Services, 2.2 per cent.; Religion, 2.1 per cent.; Youth Education, 3.4 per cent.; Non-departmental (including trade demonstration films), 10.6 per cent. A summary of the activities of the departments in the field of television is given in the following paragraphs. Transmission hours in Sydney and Melbourne, for the 12 months ended 30th June, 1959, totalled 5,618.

(b) *Talks.* In television, Talks covers a very wide field, ranging from commentaries on international affairs to panel games and outside telecasts of public events. Discussions, topical interviews, magazine programmes, women's programmes, demonstrations and film and studio documentaries are all part of the regular output.

(c) *Drama and Features.* A considerable proportion of television time is devoted to drama and features, and "live" television plays featuring Australian artists may usually be seen fortnightly both in Sydney and Melbourne.

(d) *Music.* During 1957, the A.B.C.'s musical activities extended to the field of television. A number of public concerts and studio performances were successfully telecast and there is reason to believe that the new medium will contribute to the further development of musical appreciation in Australia.

(e) *Rural Services.* The emphasis has been on providing information for consumers and on giving city viewers, by means of films, demonstrations, etc., a picture of Australia's rural industries. Regular programmes featuring many facets of Australian agriculture and livestock activities have already been given, and this work will be developed as further facilities become available. Weather reports and forecasts are also telecast on six evenings a week.

(f) *Youth Education.* The A.B.C. provides a television programme for very young children each week-day, under the title "Kindergarten Playtime". Experimental television programmes for schools are being presented.

(g) *News.* Television news bulletins and newsreels have been included in the programmes presented in both Sydney and Melbourne since the television services began in November, 1956.

(h) *Other Activities.*—Special television programmes are presented for children, including filmed material obtained on an exchange basis from overseas television organizations. Church services have been televised in Sydney, Melbourne and Bathurst and other special religious programmes have been telecast. Outside broadcast cameras have covered a number of sporting events, including the Olympic Games, Davis Cup tennis, Test and Sheffield Shield cricket and swimming championships.

3. **The Commercial Television Service.**—Commercial television stations are operated under licences granted by the Postmaster-General. Licences for commercial television stations have been granted as follows:—Sydney—ATN (Channel 7), TCN (Channel 9); Melbourne—HSV (Channel 7), GTV (Channel 9); Brisbane—BTQ (Channel 7), QTQ (Channel 9); Adelaide—ADS (Channel 7), NWS (Channel 9); Perth—TVW (Channel 7) and Hobart—TVT (Channel 6). The stations commenced operations on the following dates:—ATN, 2nd December, 1956; TCN, 16th September, 1956; HSV, 4th November, 1956; GTV, 19th January, 1957; QTQ, 16th August, 1959; N.W.S., 5th September, 1959; TVW, 17th October, 1959; ADS, 25th October, 1959; BTQ, 1st November, 1959. It is anticipated that station TVT Hobart will commence operations in May, 1960.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is £100 for the first year and thereafter £100 a year plus one per cent. of the station's gross earnings from the televising of advertisements or other matter during the preceding financial year.

4. **Extension of Television Services.**—On 30th April, 1959, the Postmaster-General announced that the Government had decided to proceed with the third stage of development of the television services. Broadly, the areas to be considered in this phase are:—

New South Wales—

Newcastle-Hunter River, Illawarra, Richmond-Tweed Heads, Central Tablelands.

Victoria—

Ballarat, Bendigo, Latrobe Valley, Goulburn Valley.

Queensland—

Darling Downs, Rockhampton, Townsville.

Tasmania—

North Eastern Tasmania.

Australian Capital Territory—

Canberra.

This further extension of Television now planned will mean that 75 per cent. of the Australian people will be able to receive a television service. Consideration of the remaining provincial and rural areas will be given when this phase is well under way. Inquiries by the Australian Broadcasting Control Board into applications for licences for commercial television stations in the abovementioned areas are now proceeding.

The Broadcasting Control Board has prepared a provisional Frequency Assignment Plan which provides for the allocation of channels for four television services in each capital city and two services to reach every town with a population in excess of 5,000.

§ 4. Licences, etc.

1. **Broadcast Listeners' and Television Viewers' Licences.**—(i) *General.* Broadcast listeners' and television viewers' licences are issued at post offices in accordance with the provisions of the Broadcasting and Television Act 1942–1956, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence authorizes the operation of any broadcast receiver, and a television viewer's licence any television receiver, which is:—(a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and/or ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of the holder, or of a member of his family, and is ordinarily kept at that address while not in use.

The fee for a broadcast listener's licence or a renewal thereof is:—Zone 1, £2 15s.; Zone 2, £1 8s. Zone 1 is the area within approximately 250 miles of specified broadcasting stations and Zone 2 is the remainder of the Commonwealth. A television viewer's licence costs £5.

A licence may be granted at reduced rates to any person who (a) is in receipt of a pension under Part III. or Part IV. of the Social Services Act 1947–1957, or a service pension, or a pension in respect of total and permanent incapacity, under the Repatriation Act 1920–1956, or the Repatriation (Far East Strategic Reserve) Act 1956; and (b) lives alone, with another pensioner, or with any person whose income does not exceed the maximum amount of income and pension allowed under Part III. or Part IV. of the Social Services Act

1947–1957, or section 87 of the Repatriation Act 1920–1956. Licence fees for pensioners are as follows:—broadcast listener's licence—Zone 1, 10s.; Zone 2, 7s.; television viewer's licence, £1 5s.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school. A tourist resident in Australia for not more than six months and an overseas diplomatic or consular representative or a member of his staff is not required to hold a licence. Inmates of a hospital or charitable institution are covered by the licence held by the institution.

(ii) *Licences in Force.* (a) *Broadcast Listeners'.* The following table shows the number of broadcast listeners' licences in force at five year intervals from 1925 to 1955, and for 1959.

BROADCAST LISTENERS' LICENCES IN FORCE.

At 30th June—	N.S.W.(a)	Vic.	Qld.	S.A.(b)	W.A.	Tas.	Aust.
1925	34,857	20,290	1,267	3,331	3,562	567	63,874
1930	111,253	140,072	23,335	25,729	5,755	6,048	312,192
1935	279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940	458,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(c)	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(c)	683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955	746,050	549,690	293,542	223,593	150,199	71,602	2,034,676
1959	827,453	605,340	337,760	247,468	169,272	76,419	2,263,712

(a) Includes the Australian Capital Territory. (b) Includes the Northern Territory. (c) Excludes licences for receivers in excess of one. These licences were introduced in July, 1942, and were abolished on 31st December, 1951.

Of the 2,263,712 broadcast listeners' licences in force at 30th June, 1959, 1,323,473 or 59 per cent. were held by persons living in metropolitan areas and 940,239 or 41 per cent. by persons in country areas. Of the latter, only 13,714 were in respect of Zone 2.

(b) *Television Viewers'.* The following table shows the number of television viewers' licences in force each year at 30th June and 31st December, 1957 to 1959.

TELEVISION VIEWERS' LICENCES IN FORCE.

Date.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
30th June, 1957 ..	28,912	44,986	..	..	..	11	73,909
31st December, 1957 ..	74,627	91,922	..	..	..	27	166,576
30th June, 1958 ..	143,422	147,721	..	..	..	43	291,186
31st December, 1958 ..	232,473	222,172	..	..	..	51	454,696
30th June, 1959 ..	300,871	270,073	360	6,124	..	74	577,502
31st December, 1959 ..	358,544	307,950	27,590	34,060	9,621	90	737,855

Of the 577,502 television viewers' licences in force at 30th June, 1959, 516,440 or 89.4 per cent. were held by persons living in metropolitan areas.

2. **Radio-inductive Interference.**—In each State of the Commonwealth, the Postmaster-General's Department maintains a staff of experts with suitable equipment and transport, for the purpose of investigating complaints of radio-inductive interference to the reception of broadcast and television programmes and to defence and civil radio-communication services.

During the year 1958–59, 18,768 sources of trouble, including 5,533 affecting television reception, were eliminated as a result of Departmental efforts or by other action. More than 4,500 suppressors were fitted to offending appliances as recommended by investigating officers, who carried out 637,012 inspections in metropolitan and country areas.

3. **Prosecutions under the Broadcasting and Television Act.**—Persons convicted during the year ended 30th June, 1959, for operating unlicensed broadcast receivers numbered 6,652. Fines and costs amounting to £35,160 were imposed. During the year ended 30th June, 1959, 913 unlicensed television viewers were convicted and fined a total of £6,482, including costs.

CHAPTER XV.

EDUCATION.

§ 1. Introduction.

An account of the development of the Australian school system up to 1929 may be found in Official Year Books Nos. 1, 2, 17 and 22. In Official Year Book No. 40, a reasonably complete review of changes which occurred up to 1951 and of the practices then current was presented from material furnished in the main by the Commonwealth Office of Education.

In the sections which follow, the information relating to the educational programme applies mainly to the year 1959. The statistics given in the tables relate to 1958.

§ 2. Government Schools.

1. **Administration.**—Education is mainly the responsibility of the State Governments but the Commonwealth Government provides financial assistance to students and meets the full cost of education in Commonwealth Territories (*see* Chapter V.)

Although there is a tendency towards regional administration, State educational administration is centralized. The permanent head of the Education Department in each State is responsible to the Minister for Education. Contact with the schools is maintained principally through Inspectors or Superintendents. Departments are usually divided into primary, secondary and technical divisions. Some technical colleges are in a large measure autonomous. Universities are independent foundations although much of their income is derived from State and Commonwealth grants.

Examination Boards, which represent universities, Education Departments and non-government schools, control public examinations and syllabuses, and curriculum committees prepare primary and secondary curricula. State Ministers for Education meet periodically as the Australian Education Council, and Directors of Education meet annually as a standing committee of this Council.

2. **The School System.**—(i) *Compulsory.* In all States, there is legislation for compulsory school attendance. The original Victorian Education Act was passed in 1872, followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), and Tasmania and Western Australia (1893).

In 1959, the ages between which children were required by law to attend school were as follows:—New South Wales, 6 to 15 years; Victoria, 6 to 14 years; Queensland, 6 to 14 years; South Australia, 6 to 14 years (children may not leave school until the end of the term during which they reach the age of 14 years); Western Australia, 6 to 14 years; and Tasmania, 6 to 16 years. The employment of children of school age is prohibited by law.

In Victoria, South Australia, and Western Australia, amendments to the Acts have provided for the raising of the school leaving age to 15 years, but to date this legislation has not been proclaimed.

Schooling may be given in government schools (including correspondence and special schools), in non-government schools, or by private tuition. Schooling in government schools is ordinarily free. Non-government schools charge fees and usually are not assisted financially by State or Commonwealth Governments.

(ii) *Non-Compulsory.* Modern development has demanded a diversity of skills and a general raising of the educational level of the population. The trend towards raising of the school leaving age and the tendency everywhere for children to stay longer at school have been expressions of public realization of this. In recent years, less than half of all children left school when they reached the age limit for compulsory attendance. Indeed, almost half now proceed to some form of further education beyond secondary school, either as full-time students, as part-time apprentices or trainees released during the day by their employers, or as part-time evening students.

In the early years of government provision of education, the main emphasis was on the primary school, which catered for children receiving compulsory education and offered a

course largely confined to the "tool" subjects, reading, writing and arithmetic. However, a process of extension and differentiation both at the bottom—infants' schools and kindergartens—and at the top—secondary schools—was well under way during the early years of this century.

3. **The Educational Ladder.**—(i) *Infants' Schools.* It is now customary, although not compulsory, for children to begin school when they are five years old. In larger primary schools they enter the infants' school, and in smaller schools infants' classes, which occupy two or three years, the first year in some States being called "Kindergarten" or "Preparatory". The emphasis in the infants' classes is very much on general development, on play activities and on the informal aspects of the educational processes. In some cases, the first two grades of primary education, together with any "Preparatory" or "Kindergarten" classes, are to be found in separate infants' schools or departments, but whether in a separate establishment or as a part of a primary school, there is a gradual move towards formal instruction. At the end of the period, most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and can write in pencil. In addition, they have acquired skills with art materials and the like. A good deal of the instruction is carried on through activity methods, involving, for example, dramatic work, puppetry, and school "shops". Children then pass at about the age of 8 or 9 to the more formal primary school, in which they normally spend four or five years.

(ii) *Primary Schools.* The main emphasis in the primary school as distinct from the infants' school still lies on the "tool" subjects (reading, writing and arithmetic) and, in more recent years, on oral language, but the methods of teaching have undergone considerable changes. Changes in the purpose and outlook of educationists, and the raising of the professional standards of teachers, have made for greater freedom for pupils and teachers, some departure from the methods of mass instruction, and the closer linking of the curriculum with the child's social environment.

In general, there is now less emphasis on results than formerly, and basic skills are taught at a somewhat later stage. At the same time, the curriculum has been broadened. More individual instruction has led to a reduction in minimum standards of achievement for the less able and a stress on curriculum enrichment for the bright. Retardation, i.e., the repeating of grades, has been considerably reduced, the aim being for each child to remain with his age group. In all States, opportunity classes exist for backward children, and in one State opportunity classes are provided for the especially bright.

(iii) *Secondary Schools.* At the age of 12 or 13 (in Queensland, 14), children transfer to a secondary school course. In the cities and larger country centres, this is provided in a separate school, but in less densely populated areas secondary classes share the same buildings as primary classes. In rural areas, secondary pupils may share teachers or classrooms with primary pupils, and in one-teacher schools a few secondary students may carry out correspondence assignments under the supervision of the primary teacher-in-charge.

Secondary curricula have developed from the matriculation requirements of the universities. Formerly English grammar and literature, and mathematics, including algebra, geometry and trigonometry, were the core. Languages, chiefly Latin and French, or science, chiefly physics and chemistry, and history had an important place. Geography and drawing were often taken in the first two or three years.

As a result of changes in the academic course for matriculation, greater emphasis has been placed on oral and written expression in the English course and on language generally (English or foreign languages); in two universities, new matriculation regulations require a pass in either mathematics or a foreign language (not necessarily Latin which, in recent years, has been less popular than previously). A general science course has been introduced in some States, and social studies, a synthesis of history, geography and civics, is a subject to matriculation level in two States. More emphasis has been placed on art, music and physical education.

In recent years, the provision of a secondary education for all has gained ground rapidly, although the entrance requirements of tertiary institutions are still provided for. Consequently, alongside the academic course, other courses have grown up. In country areas, they may be offered in the same school or the academic course may even be largely abandoned. In the city, it is usual to offer non-academic courses in separate schools, although there is a trend towards comprehensive high schools offering several types of courses and catering for all the pupils from the district. Schools providing academic courses are usually known as High Schools, while the other types are generally distinguished by such names as Junior Technical Schools and Home Science Schools.

Particular mention should be made of the recent development of the all-stage consolidated school sometimes with an agricultural bias, found under various names in different States. Tasmania and South Australia adapted the idea of the English village area schools Australian conditions and established "Area Schools", some of which have farms hed.

The courses followed in the non-academic schools are, in general, broader than in the academic schools. There is less concentration on establishing an academic discipline and method peculiar to each subject, but more attention to correlation between fields of knowledge, sometimes expressed by projects involving them all. Generally, less time is devoted to mathematics and the formal sciences, and more time to practical work and to art and musical appreciation. In English, oral language is emphasized rather more and grammar much less than in the academic schools.

(iv) *State Details.* Very brief particulars of the position in each of the States are given on pages 432-3 of Official Year Book No. 40.

4. *Examinations and Accrediting.*—(i) *Examinations.* The various public examinations which were formerly held at different stages of education were described in previous Year Books, in particular in No. 40 (1954). There are no public examinations in primary school, but each school normally holds internal examinations yearly or half-yearly. In most States, there is no public examination barrier at the end of primary school, and pupils proceed to high schools of various types. The trend is towards greater use of internal examinations, and headmasters' recommendations. In Queensland, a Scholarship Examination is held at the end of primary school, and pupils passing this examination qualify for free secondary education; this makes secondary education free for the great majority of children in Queensland. In all other States, secondary education is quite free. The length of the secondary schooling now varies from four years in Queensland to six years in Victoria.

There are two important examinations in secondary school—one about half-way through the course, and one at the end. The first examination is usually called the Intermediate or Junior and pupils sit for this after 2, 3 or 4 years of secondary study at the age of 15 or 16. Many pupils leave school at this stage and enter technical and agricultural colleges, or undertake commerce, insurance, banking certificate, or nursing and secretarial courses. The remaining pupils after one or two years further study, sit for the Leaving or Matriculation examination and qualify for entry to universities, teachers' colleges, technical college diploma courses or the clerical division of the public service. There are, of course, many variations from State to State, and details of these are given below. Most of the examinations are public ones, set and marked by an external authority and conducted on a Statewide scale, but some examinations are done internally, or a compromise between these two forms may be arranged to meet special circumstances.

(ii) *State Details. New South Wales.* The Intermediate Certificate Examination is taken after three years, either internally or externally, at an average age of 15, and the Leaving Certificate Examination (Matriculation), is taken after five years, at an average age of 17. However, it is planned to alter this in the near future to a six-year system, with a School Certificate after four years and a Higher School Certificate after six years.

Victoria. The Proficiency Certificate is taken internally after three years at school, at an average age of 14½; the Intermediate is taken at the end of the fourth year, the School Leaving at the end of the fifth year, and the Matriculation at the end of the sixth year. Pupils at approved schools may be accredited for the Intermediate and Leaving—i.e., the Certificate is awarded by the Education Department on the recommendation of the school principal under certain conditions.

Queensland. The Junior Public Examination is taken at the end of second year; pupils are then aged about 16. The Senior Public Examination (Matriculation) is held at the end of fourth year.

South Australia. The Intermediate Examination is taken at the end of third year, at an average age of 15½; the Leaving Certificate (Matriculation) at the end of fourth year; and the Leaving Honours at the end of fifth year.

Western Australia. The Junior Certificate Examination is taken at the end of third year by pupils aged about 15½; the Leaving (Matriculation) is taken at the end of fifth year. Certain schools are approved for accrediting in a few subjects at the Junior Certificate Examination.

Tasmania. The Modern School Certificate (an internal examination) is taken at the end of third year, when pupils are aged about 15; the Schools Board Certificate is taken at the end of fourth year, and the Matriculation at the end of fifth year. Certain schools are approved for accrediting for the Schools Board Certificate.

5. Health Services to Schools.—Information relating to school medical and dental services is given in Chapter XVII.—Public Health.

6. Guidance.—Each Australian State now has a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of school record cards. In general, the functions of these services are:—selection and differentiation for secondary education, diagnosis and guidance of atypical children, preliminary vocational guidance and, in some States, research. The weight given to each of these functions varies considerably from State to State, but the aim is to provide thorough educational guidance for all children.

Throughout Australia, branches of the Commonwealth Employment Service co-operate with State Education Departments by giving post-school vocational guidance, using the data obtained and made available by the Education Departments during the school career of the children. In New South Wales, a similar service is also provided by the Youth Welfare Section of the Department of Labour and Industry.

7. Research.—(i) *State Education Departments* All State Education Departments have set up research branches which function as integral parts of head offices. In several States, the officer who directs research is also responsible for the guidance service offered by his department. The research undertaken is directed towards departmental activities and the findings are examined carefully in the determination of policy and procedures; in addition, many problems of immediate importance are handled. In the majority of States, too, the Research Branch supervises the collation of statistics and also plays an important part in curriculum revision and modification of examinations.

(ii) *Australian Council for Educational Research.* The Australian Council for Educational Research, a non-governmental body, is also engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardizes and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State Governments contribute some financial support to it.

8. Atypical Children.—Pupils who, for one reason or another, cannot progress to their best advantage in an ordinary school are catered for by special schools or classes. Among groups given special attention are the mentally backward, the gifted, the physically handicapped, the blind, deaf and dumb, the epileptic, the cerebral palsied, the partially sighted, the hard-of-hearing and the delinquent. The provision of special schools and classes has involved the appointment of departmental specialists, special training courses and close liaison with school health services. In some States, special clinics attached to hospitals, or functioning as an independent child-welfare service, handle cases of personality maladjustment and work in co-operation with the psychological services of the Education Departments.

9. Education of Native Children in Australia.—The Commonwealth Government is responsible for the education of full-blood native children in the Northern Territory. Each State has responsibility for the welfare and education of native children within its boundaries.

Native children are admitted to government schools in all States except in areas where separate facilities are provided. In those States where natives are more numerous, special schools are located at or near aboriginal reserves, settlements and stations. The schools are for the most part staffed by teachers from the Education Departments, and the curriculum is similar to that in ordinary government schools with a bias towards handicrafts. Numbers of native children also attend the mission schools conducted in several States by the various religious denominations. The standard of education in these schools is similar generally to that in the government schools.

10. *Provision for Rural Areas.*—(i) *General.* The population of Australia is so scattered that there is a problem in providing primary, and more especially secondary, education for all children. One method of meeting this problem has been the establishment of a wide network of one-teacher primary schools, staffed in the main with trained teachers. The practice of sending itinerant teachers to assist correspondence students in outlying areas has been introduced in the far north of Western Australia.

(ii) *Subsidized Schools.* Where a group of children is too small to warrant the establishment of a one-teacher school, a "subsidized school" may be opened. The Education Department pays part of the cost, and in some States appoints a teacher. Some States also administer "provisional schools", which are completely financed by the Government but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.

(iii) *Consolidated Schools.* In some States, in districts where a number of small centres are scattered around a larger centre or country town, recent policy has been to close the one-teacher schools and transport pupils each day by bus to a "consolidated" school in the larger centre. Consolidated schools provide primary instruction and from two to four years of post-primary instruction. The post-primary curriculum adopted usually has a bias towards practical activities and training in subjects bearing on the primary industries of the locality.

(iv) *Special Assistance.* Another way of bringing children to the school has been the provision of financial assistance for children who have to live away from home in order to attend school. Most of these board in private homes but in the several States there are a few government hostels and over 60 private hostels (excluding private boarding schools), many of which are government-subsidized. Together, these cater for almost 2,000 children of secondary school age and a small number of primary school children also. In all States, some provision is made for financial assistance towards the living and travelling expenses of children who are obliged to live away from home in order to attend school.

(v) *Correspondence.* For children who are still unable to attend school, systems of correspondence tuition have been established in every State. The Education Departments provide tuition through primary and secondary school levels and up to matriculation standard if required. In addition, the Technical Correspondence Schools conducted by the senior technical college of each State arrange for correspondence tuition at secondary level up to matriculation standard for students over the school leaving age. Further reference to the work of the Technical Correspondence Schools is made in § 5 of this chapter, which deals with technical education (see p. 596).

11. *School Broadcasting in Australia.*—Over the years, an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The Youth Education Department of the A.B.C. is responsible for the broadcasting of the programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison officers with the Education Departments. More than two-thirds of Australian schools are equipped with radio receivers.

School broadcasts are presented as part of the regular A.B.C. programmes without separate stations or wave lengths. Special efforts are made, however, to relate the broadcast to school work by the extensive distribution of booklets giving details of programmes in advance and subject notes accompanied by picture sheets, work books, and teachers' notes.

Broadcasting has proved to be a most effective way of reaching the outback children of Australia, and radio lessons have been designed to supplement correspondence lessons. The success of the first School of the Air, which has been in operation at Alice Springs in the Northern Territory since 1950 and serves correspondence pupils of the South Australian Education Department, has led to the opening of similar schools based at Ceduna and Port Augusta in South Australia, and at Broken Hill in the far west of New South Wales. In all, these schools serve a total of well over half a million square miles. By means of special two-way radio equipment, children hundreds of miles apart can participate in the same lesson and teachers and pupils can talk directly with each other.

The "Kindergarten of the Air" is described in § 4 of this chapter, which deals with pre-school education (see p. 595).

12. Teacher Training and Recruitment.—(i) *General.* The training of government school teachers is carried out by the State Education Departments, but in most States persons who wish to train for teaching in private schools may attend government training colleges on payment of a fee. Many non-government school teachers have been drawn from the government teaching services and others have been recruited at the university graduate level. Private training institutions also provide some teachers.

An account of the early growth of teacher training systems is to be found in Official Year Book No. 22 and subsequent developments were reviewed extensively in Official Year Book No. 40. The pupil-teacher system has been abandoned as the chief method of training teachers and teacher students are now recruited at matriculation level and given a professional course of training at colleges controlled by Education Departments or by university departments of education. The raising of standards and lengthening of training have led to a close association between the Education Departments and universities. The trend has been towards placing teacher training on the same basis as other professional training.

There is at present a shortage of teachers in Australia. Measures taken to overcome this shortage include substantial increases in teachers' salaries and liberalization of promotion systems, publicity drives to attract recruits and increases in living allowances to departmental teachers' college students. In some States, special arrangements are in force for intensive shorter training courses, in order to meet the immediate need. In others, recruitment of teachers overseas is undertaken to reduce the shortage.

(ii) *Training Colleges.* Every State maintains at least one teachers' training college. Most students are trained at colleges in the capital cities, although there has been a movement towards the establishment of colleges in the country. At the end of 1959, there were in Australia 25 teachers' colleges conducted by Education Departments and professional training for graduate teachers was provided by seven universities.

(iii) *Training of Primary Teachers.* In most States, teachers for government primary schools are trained in co-educational teachers' training colleges controlled and administered by the State Education Departments. Departmental trainees are given a monetary allowance while in training and are required to enter into a bond to serve for a specified period on completion of training or to repay all or portion of the cost of training.

The entrance standard is generally at the Leaving Certificate level at about the age of seventeen. In some States, intending teachers can obtain a scholarship at the Intermediate Certificate level to enable them to complete teachers' college entrance requirements. In return, they are required to enter into a bond of service additional to that normally required of departmental teachers' college trainees.

In general, the duration of courses is two years for primary teachers, including infants' teachers. The basic subjects taken in the various courses are principles, history and general methods of teaching, special methods of teaching primary school subjects and educational psychology. In addition, students undertake courses in physical education, art, music, school hygiene and handicrafts as well as lectures designed to widen their own cultural background.

In South Australia, primary teacher trainees attend certain university courses, including education, as part of their training. In Tasmania, while the majority of departmental teacher trainees receive their training at the university, there is also a government teachers' college providing courses in infant, primary and home arts teaching.

In some States, separate courses are provided for teachers in infants' schools and in small one-teacher schools. In Victoria, an extension course of one year following the primary course is designed to train teachers of home-crafts for primary schools.

(iv) *Training of Secondary Teachers.* Prospective secondary teachers are required to undertake a degree course followed by a one-year post-graduate course leading to a university degree or diploma in education, or a two or three year course at a teachers' college. Both these periods of training include lectures on subjects associated with educational theory and practice, study of methods and techniques appropriate to secondary school subjects, periods of practice teaching and the observation of classroom techniques in the teaching of special subjects.

(v) *Training of Specialist Teachers.* Teachers of specialist subjects such as music, art, manual arts, domestic science and commercial subjects receive from two to five years' training varying according to the institution concerned and the type of secondary school in which the teacher is to teach. In several States, the shorter courses are provided wholly

by the teachers' colleges. Where the specialist course is given at an institution other than the teachers' college—for example, at a university, technical college or conservatorium of music—as is usual for teachers of specialist subjects in high schools, trainees are required to attend teachers' college or university lectures in education and in some cases the specialist course is followed by a year of professional training.

There are conservatoria of music in four States. In New South Wales and Queensland, the conservatorium is a State institution under the Minister for Education; in Victoria and South Australia, it is attached to the university.

Courses designed to train physical education teachers are offered in five States, in one at a teachers' college and in the others by the universities.

Training for teachers of agricultural subjects in secondary schools is available in five States and consists of either an agricultural college diploma or a university degree course together with professional training. In Victoria, the two-year agricultural college diploma course follows the normal two-year primary teachers' course. In New South Wales, in addition to the three-year university agricultural course followed by one year's professional training, there is a two-year teachers' college agricultural course.

(vi) *Training of Technical Teachers.* Teachers of general subjects in technical schools and colleges usually receive their training either as primary or as secondary teachers and, after some experience in either or both fields, are transferred to a technical institution.

Teachers of specialist subjects in technical schools are usually recruited from the ranks of qualified tradesmen engaged in either industry or commerce. Upon appointment, teachers of technical subjects usually receive instruction in classroom teaching techniques and procedures. A separate Technical Teachers' College has been established in Victoria.

(vii) *In-service Training.* As almost all teachers now enter the profession by way of teachers' colleges, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training.

Such training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evenings. Courses consist of discussions and lectures given by senior staff members of Education Departments and university and teachers' college lecturers, on such subjects as classroom techniques and supervision, librarianship, visual aids, music, arts and crafts and physical education. In some States, there are also in-service courses for special groups of teachers, such as headmasters or teachers of one-teacher schools. In addition, district inspectors are responsible for organizing short conferences of teachers where professional topics are discussed.

Education Departments encourage teachers to pursue university courses, and in some States pay the cost of courses undertaken by selected teachers.

The official publications of the Education Departments contain articles dealing with educational theory and practice. In most States, the magazines of the teachers' organizations, which reach the majority of government teachers, also contain articles of this type.

(viii) *State Details.* The details of teacher training in the States are given on pages 442–3 of Official Year Book No. 40.

(ix) *Sex and Status of Teachers.* Although about half of the teachers in State schools in Australia are men, the ratio varies from State to State. In the infants' schools and generally in girls' departments, women teachers only are employed. Men, however, predominate in the senior positions, both because of their greater preponderance amongst those with long service and because the higher promotion positions are generally reserved for men, except in infants' schools and girls' schools.

13. *School Buildings and Grounds.*—In 1930, school building programmes were seriously cut because of the financial difficulties of the depression. The 1939–45 War intervened before school building could be resumed on a large scale. After the war, the building of schools was given a high priority, but the rapid post-war increases in school population have imposed a severe strain on available school accommodation and such emergency measures as the use of halls, cloakrooms and weather-sheds for class instruction have been adopted in some areas.

The post-war buildings fall into two groups, portable and permanent. In primary schools in particular, some Education Departments favour the use of both kinds of classroom in conjunction, thus enabling them to cope with the changing age-composition of particular areas. Prefabricated buildings and classrooms have been imported or locally produced in increasing quantities and include timber-frame units aluminium and steel units, and single and multiple pre-cast concrete units. Such prefabricated buildings are used, not only in extending the facilities of existing schools and to provide multi-purpose units such as assembly hall gymnasiums, but also for erecting entire schools. Expenditure on school building has increased greatly in all States over recent years.

14. Equipment.—(i) *Text Books and Materials.* The State Education Departments supply government schools with essential equipment free of charge, including scientific apparatus and equipment, maps, blackboards, chalk and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are supplied free in most States.

Primers and writing equipment for individual pupils are usually supplied free in primary schools and each Department except one produces in addition monthly school magazines which are supplied free or at a small cost. Textbooks, however, are supplied to primary pupils free of charge in one State only. In other primary schools and in all secondary schools, textbooks must be purchased by students, although in several States schools own stocks of textbooks which are hired to students and in one State secondary textbooks are sold at reduced rates.

Other equipment is supplied free by the Departments on a limited basis only. Equipment such as radios, film and filmstrip projectors, pianos, duplicators and library books are ordinarily purchased for individual schools by the parent and citizen organizations associated with them, with the assistance of subsidies from the Departments.

(ii) *Furniture.* There has been considerable development in this field. Originally most schools were equipped with long desks and benches, seating six to eight pupils, but these were later replaced by the standard dual desk with tip-up seat, and in infant classes by individual chairs and small tables. After the war, considerable research was undertaken on posture and the physical measurement of children. The dual desk is now being replaced in some States by the individual table and chair, provided in a range of sizes suitable to each class. In some States, tubular steel furniture is used. The new type of furniture is more suitable for flexible arrangements of the class in line with modern educational practice.

(iii) *Visual Aids.* In the past 20 years, there has been a remarkable growth in the use of visual aids in education. After some resourceful pioneering work had been done by individuals, the Departments of Education, between 1936 and 1939, appointed special committees and teacher demonstrators to guide the development of the new educational medium. Production units to produce film strips suitable for use in schools were set up in five States and an Australian-produced film-strip projector was manufactured. After the war, the emphasis moved from the strip projector to the 16 mm. sound machine and the Australian National Film Board, set up by the Commonwealth Government to promote the use of educational films, became the main producer of these films. Film companies are also designing films primarily for class-room use and several manufacturers have produced 16 mm. sound projectors. Education Departments have their own film libraries to distribute films to schools and, in addition, borrow from the Commonwealth National Library, which is the main distributing centre for non-technical films in Australia.

15. Parent and Citizen Organizations.—In Australia, where all government schools are administered by central departments, there is little opportunity for local administration of education. Public interest is expressed through parents' committees or organizations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote the interest of the school by bringing parents, pupils and teaching staff together, to help provide teaching aids and recreation materials not supplied by the departments, to assist in the regular attendance of children at school and to help find accommodation for teachers.

In several States, the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools, where Oslo lunches may be purchased, are maintained by groups in some States.

A notable achievement of the parent groups has been the establishment of school children's insurance schemes, operated through State government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils of federations of parents' groups are associated in a federal body, the Australian Council of School Organizations.

16. School Banking.—Particulars of School Savings Banks are included in Chapter XX.—Private Finance.

17. Statistics of Government Schools.—(i) *General.* The government schools shown in the following tables include primary, secondary, junior technical, correspondence and subsidized schools, but exclude senior technical colleges, evening schools and continuation classes.

Particulars relating to senior technical colleges are given in § 5, page 596.

Enrolments may be measured in a number of ways:—

Gross Enrolment means the number of names entered on the school rolls during the course of a year. Some children are thus counted more than once if they transfer from school to school during the year.

Net Enrolment means the gross enrolment less transfers from school to school. This is sometimes referred to as "the number of children instructed" at any time during the year. Children transferring between government and non-government schools are still counted in both places. Net enrolment is less than gross enrolment, but greater than the number of children enrolled at one time.

Average Weekly Enrolment may mean either (1) the average of the highest enrolment in each week; or (2) the average of the average enrolments for all weeks in the year. These figures do not differ appreciably, but some States use one and some the other.

Average Weekly Enrolment, by either method, may include a few children counted twice. It may be less than net enrolment and less than the greatest number of children enrolled at one time.

Census Enrolment means the number of children enrolled on a chosen day, usually 1st August. The figures thus determined usually approximate to the average weekly enrolment. If the census is at the end of the year, the figure may be higher than average weekly enrolment for primary schools and lower for secondary schools.

Average Daily Attendance which means the average number of children present for each whole school-day. In some States, half-day absences are taken into account in computing "average daily attendance" thus lowering the figure which would be obtained if presence for half a day were counted as presence for a whole day.

(ii) *Statistical Summary.* The following table shows for 1958 the number of government schools, together with the number of teachers employed and teachers in training:—

GOVERNMENT SCHOOLS(a), 1958.

State or Territory.	Schools Open.	Teachers Employed (excluding Teachers in Training).	Teachers in Training.
New South Wales(b)	2,660	(c) 18,300	(c) 4,070
Victoria	2,096	13,729	3,780
Queensland	1,558	7,942	3,165
South Australia	647	5,504	1,022
Western Australia	503	3,663	1,044
Tasmania	283	2,535	546
Northern Territory	13	124	..
Australia	7,760	51,797	13,627

(a) Excludes Senior Technical Colleges. (b) Includes Australian Capital Territory. (c) At 30th June, 1958.

(iii) *Average Enrolment and Attendance.* The average enrolment and attendance in each State and the Northern Territory during 1958 are shown below:—

GOVERNMENT SCHOOLS(a): AVERAGE ENROLMENT AND ATTENDANCE, 1958.

State or Territory.	Average Weekly Enrolment.	Average Daily Attendance.	Percentage of Attendance to Enrolment.
New South Wales(b)	554,223	502,643	90.69
Victoria	388,946	349,521	89.86
Queensland	(c) 224,237	199,633	89.03
South Australia	(d) 150,056	137,706	91.77
Western Australia	111,186	104,166	93.69
Tasmania	60,921	56,121	92.12
Northern Territory	(d) 2,786	2,491	89.41
Australia	1,492,355	1,352,281	90.61

(a) Excludes Senior Technical Colleges.
enrolment at 1st August.

(b) Includes Australian Capital Territory.
(d) Average daily enrolment.

(c) Census

The average attendance at government schools in Australia is shown in the following table for the year 1891 and at varying intervals to 1958:—

GOVERNMENT SCHOOLS(a): AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population. (b)	Average Daily Attendance.	Year.	Total Population. (b)	Average Daily Attendance.
	'000.	No.		'000.	No.
1891	3,421	350,773	1952	8,740	974,934
1901	3,825	450,246	1953	8,903	1,037,621
1911	4,574	463,799	1954	9,090	1,089,484
1921	5,511	666,498	1955	9,313	1,153,628
1931	6,553	817,262	1956	9,533	1,219,081
1941	7,144	732,116	1957	9,747	1,272,153
1951	8,528	899,514	1958	9,952	1,352,281

(a) Excludes Senior Technical Colleges.

(b) At 31st December.

(iv) *Schools in the Australian Capital Territory.* During 1958, 15 government schools were in operation in the Australian Capital Territory. Enrolment at the end of the school year numbered 6,638 and average daily attendance was 5,960. By arrangement with the Commonwealth Government, these schools are conducted by the New South Wales Education Department with provision for primary and secondary education, the Department being recouped for expenditure. The cost of the teaching staff in 1957-58 was £292,789, while the cost of general maintenance amounted to £146,100. The figures quoted exclude enrolment, etc., at the Canberra Technical College and the Evening Continuation School. For further particulars of educational facilities in the Australian Capital Territory, see Chapter V.—The Territories of Australia, Australian Capital Territory, page 121.

(v) *Expenditure.* (a) *Maintenance—All Schools (except Senior Technical Colleges).* The net expenditure on maintenance in all grades of schools, except senior technical colleges and, in Victoria, junior technical schools, and the cost per head of average attendance for each of the years 1954 to 1958 are shown in the following table. The figures do not include expenditure on buildings, which is shown in a subsequent table. In all expenditure tables, the figures for Victoria, Queensland, Western Australia and the Northern Territory relate to the financial year ended six months earlier than the calendar year.

GOVERNMENT SCHOOLS(a) NET EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (b)	Vic. (c)(d)	Q'land. (d)	S. Aust.	W. Aust. (d)	Tas.	N.T. (d)	A.C.T.	Aust.
TOTAL (INCLUDING SECONDARY SCHOOLS). (£'000.)									
1954..	21,486	12,993	6,353	4,444	4,382	2,435	102	258	52,453
1955..	24,901	14,454	6,979	5,480	5,143	2,667	125	309	60,058
1956..	27,054	17,405	8,194	5,986	5,755	2,896	149	345	67,784
1957..	28,859	19,439	9,098	6,581	6,307	3,386	155	417	74,242
1958..	31,837	21,255	9,969	7,389	6,963	(f)	197	439	(f)
PER HEAD OF AVERAGE ATTENDANCE. (£ s. d.)									
1954..	52 1 11	47 13 6	39 5 2	41 3 11	53 0 0	51 12 6	67 0 8	75 7 3	48 2 11
1955..	57 4 9	49 19 2	40 15 8	47 7 8	58 12 11	54 7 5	79 4 1	74 14 3	52 1 3
1956..	59 13 10	56 14 6	44 18 3	48 6 9	60 17 8	55 18 10	81 3 11	74 0 2	55 12 1
1957..	60 19 4	60 12 0	48 0 1	50 15 6	63 13 9	64 12 6	74 1 1	77 14 10	58 7 2
1958..	63 6 8	60 16 3	49 18 9	53 0 0	66 16 11	(f)	78 18 9	73 13 2	(f)

(a) Excludes Senior Technical Colleges.

(b) Gross figures, receipts not being available.

(c) Excludes Junior Technical Schools.

(d) Twelve months ended 30th June of year shown.

(e) Estimated.

(f) Not available.

(b) *Maintenance—Secondary Schools.* The figures shown in the preceding table refer to expenditure on the maintenance of all government primary and secondary schools, excluding senior technical colleges. It has been the practice of the State Education Department to give separate information in regard to the cost of secondary education. The fact, however, that both elementary and higher education are in some instances given in the same school and by the same teacher makes difficult any satisfactory allocation of expenditure between primary and secondary education. Furthermore, the term "secondary" has not the same meaning in all States. Similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted hereunder in respect of cost have been extracted mainly from the reports of the State Education Departments, and are subject to the foregoing qualifications. There are no secondary schools in the Northern Territory, although some primary schools have secondary tops. Consequently no figures are given in the following table for the Northern Territory.

GOVERNMENT SECONDARY SCHOOLS(a): EXPENDITURE ON MAINTENANCE.

State.	1956.		1957.		1958.	
	Cost.	Cost per Head of Population.	Cost.	Cost per Head of Population.	Cost.	Cost per Head of Population.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
New South Wales(b)	7,217,534	2 0 2	8,023,854	2 3 11	9,116,529	2 8 10
Victoria..	4,763,622	1 16 7	5,557,264	2 1 7	5,868,973	2 2 10
Queensland ..	1,027,837	0 15 1	1,154,012	0 16 7	1,350,465	0 19 1
South Australia ..	1,487,692	1 15 1	1,685,933	1 18 7	2,018,421	2 5 0
Western Australia	1,444,205	2 2 5	1,657,735	2 7 11	1,906,237	2 14 0
Tasmania(c)	(d)	(d)	654,388	1 19 8	(d)	(d)
Australia ..	(d)	(d)	18,733,186	1 18 11	(d)	(d)

(a) Excludes Senior Technical Colleges.

(b) Includes Australian Capital Territory.

(c) Includes

High and Junior Technical Schools.

(d) Not available.

The figures in all cases exclude the cost of buildings. In Queensland, the figure quoted excludes the cost of the Agricultural High School and College, which amounted to £246,973 in 1955-56, to £261,254 in 1956-57 and to £263,293 in 1957-58.

(c) *Buildings.* Expenditure on government school buildings, excluding senior technical colleges, for the years 1954 to 1958 was as follows:—

GOVERNMENT SCHOOLS(a): EXPENDITURE ON BUILDINGS.

(Including Loan Fund Expenditure.)

(£'000.)

Year.	N.S.W.	Vic.(b)	Q'land. (b)	S. Aust.	W. Aust. (b)	Tas.	N.T.(b)	Total.
1954 ..	5,494	4,061	812	1,146	1,038	1,349	60	13,960
1955 ..	7,366	4,660	1,287	1,366	1,458	1,340	16	17,493
1956 ..	7,409	5,917	1,589	1,518	1,591	b c 1,200	25	19,249
1957 ..	7,707	6,266	1,608	1,992	1,827	(b) 1,078	106	20,584
1958 ..	10,918	6,875	1,933	2,865	1,923	(d)	84	(d)

(a) Excludes Senior Technical Colleges. (b) Year ended 30th June. (c) Estimated.
(d) Not available.

The totals for the various States in 1958 include the following amounts expended from funds other than the consolidated revenue fund:—New South Wales, £8,696,462; Victoria, £6,262,887; Queensland, £1,572,731; South Australia, £2,485,900; and Western Australia, £1,596,328.

(d) *Total Net Cost.* The total net cost of education in government schools, including buildings, during the years 1954 to 1958 was as follows:—

GOVERNMENT SCHOOLS(a): TOTAL NET COST.

(£'000.)

Year.	N.S.W. (b)(c)	Vic. (d)(e)	Q'land. (d)	S. Aust. (c)	W. Aust. (d)	Tas.	N.T. (d)	A.C.T. (c)(f)	Aus- tralia.
1954 ..	26,980	17,055	7,165	5,590	5,420	(c) 3,784	162	258	66,414
1955 ..	32,268	19,114	8,265	6,847	6,601	(c) 4,007	141	309	77,552
1956 ..	34,464	23,322	9,784	7,504	7,343	(d) 4,046	174	345	86,982
1957 ..	36,566	25,705	10,706	8,573	8,134	(d) 4,464	261	417	94,826
1958 ..	42,755	28,130	11,902	10,254	8,886	(g)	281	439	(g)

(a) Excludes Senior Technical Colleges. (b) Gross expenditure, receipts not being available.
(c) Figures relate to 12 months ended 31st December of year shown. (d) Figures relate to 12 months ended 30th June of year shown. (e) Excludes Junior Technical Schools. (f) Excludes expenditure on buildings. (g) Not available.

The figures in the preceding tables refer to all grades of government schools with the exception of senior technical colleges, and in Victoria, junior technical schools.

§ 3. Non-Government Schools.

1. *Public Authority and the Non-Government Schools.*—In all States, education is compulsory for all children between certain ages. It must be received in a government school, unless the child is under “regular and efficient” instruction elsewhere. This may be at home, or in a non-government school. The provision for control over the regularity and efficiency of instruction in the non-government schools varies considerably from State to State. In New South Wales and Western Australia, provision is made for an initial inspection when a new school starts, and for inspections thereafter as the Minister requires, to ensure efficiency. In Victoria and Tasmania, registers are kept of teachers and schools, and both teachers and schools must satisfy the administering authority that they are efficient before registration is granted. Without such registration, neither a teacher nor a school can operate. Provision is made, too, for inspections at any time by the registering authority.

In Queensland, eight grammar schools, which exist by statutory authority and are subsidized by the State, are subject to annual inspection. These are the only non-government schools in Australia for which an annual inspection is prescribed by statute. Other non-government schools in Queensland may be inspected at their own request, but it is possible for these schools—and also those in South Australia—to exist without inspection.

Public authority over schools or institutions having scholars above the compulsory ages is generally less direct. It is effected directly by the registration procedures in Victoria

and Tasmania, and in all States there is a measure of indirect control through provisions governing the award of State scholarships, bursaries or other forms of financial assistance to secondary scholars, which are available only in government or approved non-government schools. In New South Wales, also, the Intermediate and Leaving Certificates are awarded only to pupils of schools whose courses of study are approved by the Department of Education.

In all States, non-government schools are required, under the authority of either the Education Acts or Statistics Acts, to furnish certain statistical returns. The form of these returns may be prescribed in the Acts or may be subject to alteration with the Minister's consent.

2. Non-Government Schools Finance.—Most Roman Catholic parochial schools do not charge fees, but families make a contribution if they can afford to do so. With this exception, pupils of non-government schools must ordinarily pay fees. At the majority of non-government secondary schools, privately endowed scholarships are available in varying numbers and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school.

Certain State scholarships and bursaries are, as noted above, tenable at approved non-government secondary schools. Since the establishment of educational systems by the State Governments, official policy has been largely against the provision of direct financial assistance to non-government schools. Eight undenominational grammar schools in Queensland, however, receive a State subsidy under the Grammar Schools Acts 1860–1900. In 1957, the Tasmanian State Government brought down legislation, which was subsequently rejected by the Legislative Council, for the provision of capital grants to non-government schools, and in 1956, the Commonwealth Government arranged to contribute to the interest payments on loans raised by churches in order to build denominational secondary schools in the Australian Capital Territory.

3. Numbers of Non-Government Schools, Teachers and Enrolments.—The numbers of non-government schools, teachers and enrolments for 1958 are shown in the following table:—

NON-GOVERNMENT SCHOOLS, 1958.

Denomination.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
NUMBER OF SCHOOLS.								
Denominational—								
Church of England ..	41	34	16	13	8	5	..	117
Methodist ..	6	4	(b) 5	3	3	1	..	22
Presbyterian ..	13	14	3	2	2	2	..	36
Roman Catholic ..	668	424	254	118	170	37	2	1,673
Other ..	19	23	6	20	7	4	..	79
Undenominational ..	36	34	10	5	110	6	..	201
Total ..	783	533	294	161	300	55	2	2,128

TEACHERS.

Denominational—								
Church of England ..	847	724	296	229	135	102	..	2,333
Methodist ..	178	177	(b) 116	77	57	24	..	629
Presbyterian ..	324	340	50	70	55	19	..	858
Roman Catholic ..	4,890	2,482	1,696	754	722	254	16	10,814
Other ..	80	187	40	112	27	52	..	498
Undenominational ..	387	330	131	84	221	35	..	1,188
Total ..	6,706	4,240	2,329	1,326	1,217	486	16	16,320

AVERAGE WEEKLY ENROLMENT.

Denominational—		(c)	(c)	(c)			(c)	
Church of England ..	11,870	13,077	4,266	4,119	2,409	1,662	..	37,403
Methodist ..	2,640	3,703	(b) 1,883	1,413	1,094	337	..	11,070
Presbyterian ..	4,888	6,723	687	1,252	1,151	278	..	14,979
Roman Catholic ..	154,932	114,938	55,438	22,071	25,501	7,862	633	381,375
Other ..	1,267	3,671	579	1,749	384	928	..	8,578
Undenominational ..	5,410	5,988	2,828	1,188	3,844	523	..	19,781
Total ..	181,007	148,100	65,681	31,792	34,383	11,590	633	473,186

(a) Includes Australian Capital Territory.

(b) Presbyterian and Methodist Schools' Association.

(c) Net enrolment.

4. **Growth of Non-Government Schools.**—The enrolment and average attendance at non-government schools in 1891 and at varying intervals to 1958 were as follows:—

NON-GOVERNMENT SCHOOLS: ENROLMENT AND ATTENDANCE.

Year.			Average Weekly Enrolment. (a)	Average Daily Attendance.	Year.			Average Weekly Enrolment. (a)	Average Daily Attendance.
1891	..	..	124,485	99,588	1951	..	..	326,258	293,429
1901	..	..	148,659	120,742	1954	..	..	388,312	352,736
1911	..	..	160,794	132,588	1955	..	..	409,945	377,908
1921	..	..	198,688	164,075	1956	..	..	432,985	(b)401,900
1931	..	..	221,387	189,665	1957	..	..	453,219	(b)422,000
1941	..	..	256,580	224,355	1958	..	..	473,186	(b)446,620

(a) See Note (c) to previous table.

(b) Partly estimated.

5. **The Organization of Roman Catholic Education.**—There is, in each State capital, an official who acts under the Archbishop as a Director of Catholic Education for the area. Each diocese within the area is, however, autonomous and manages its own educational affairs subject to the local episcopal authority. The State Director has, in addition to possible inspectorial functions within his own diocese, the duty of co-ordination of educational matters within his area, and of liaison with other educational authorities, particularly the State Education Department.

The system includes kindergartens, sub-primary, primary, academic secondary, home science, commercial, agricultural and technical schools, juniorates and seminaries, schools for the mentally and physically handicapped, orphanages and a variety of special schools of a charitable nature for under-privileged or socially handicapped children.

With the exception of a small number of permanent lay teachers and a number of visiting teachers, usually specialists in such matters as physical education, sport, and speech, teaching is done by members of religious orders.

6. **The Organization of Other Non-Government Education.**—(i) *General.* Practically all non-government schools, except a limited number under private ownership, are governed by a controlling body known variously as a School Council or Board of Trustees or Governors.

Within each State, although the other non-government schools may be organized into loose forms of association for purposes such as sports, conferences, and uniform conditions, there is no system corresponding in size, detail or organization with the Roman Catholic schools.

The Headmasters' Conference of Australia and the Headmistresses' Association of Australia are composed of headmasters and headmistresses respectively of a number of the larger non-government schools, including some Roman Catholic schools. Neither body has executive powers. One of the chief considerations for the admission of new members is the degree of independence enjoyed by the governing body and principal of the school concerned.

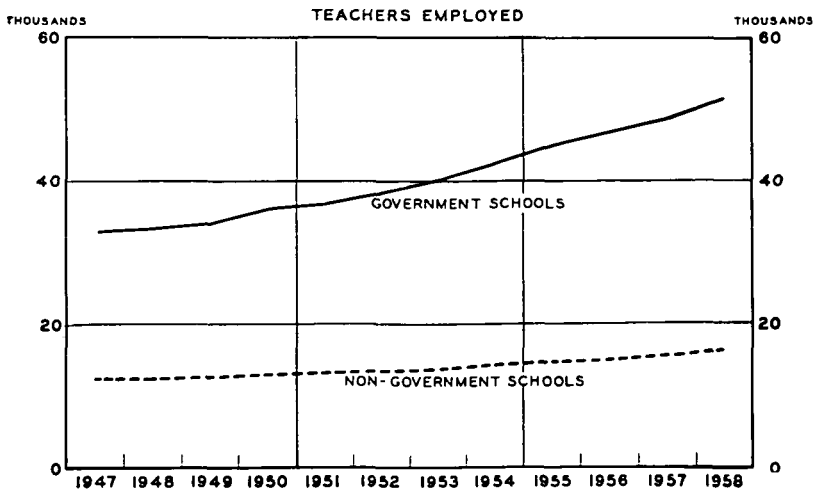
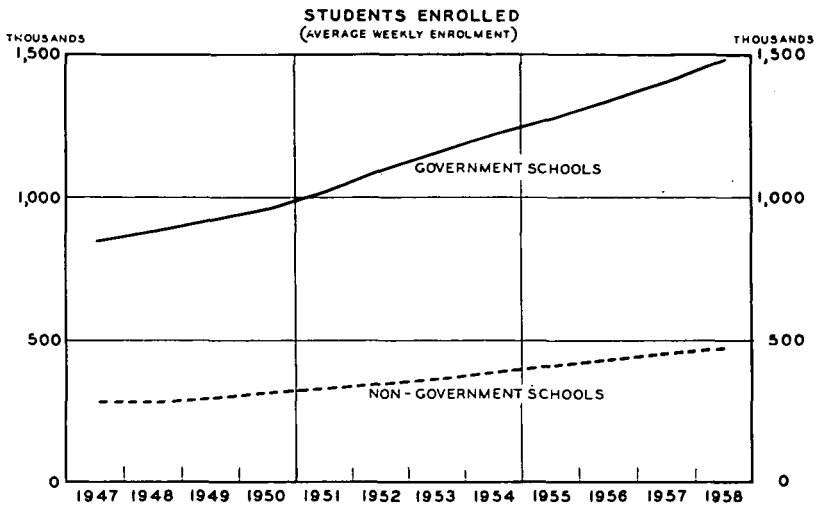
(ii) *Church of England.* The various types of Church of England schools include small schools associated with a local parish; schools under direct ownership of a diocese; schools established by Acts of the Church Synod, in which the majority of the members of the council are church representatives but which, otherwise, have almost complete independence; and schools conducted by religious orders of the church.

The proportion of members of a school council nominated by the church varies. In some schools, members may also be nominated by parents, by former students, and by the council itself.

In general, schools incorporating the words "Church of England" in their title follow a diocesan syllabus of religious education.

(iii) *Other Denominations.* In general, control of Presbyterian schools is exercised through School Councils appointed by the General Assembly of the Presbyterian Church in the State concerned. Councils vary considerably in size and in the bodies represented on them. Similarly, appointments to councils of Methodist schools are made by the annual Conference of each State. In Queensland, five schools are operated under the joint auspices of the Presbyterian and Methodist churches.

STUDENTS ENROLLED (AVERAGE WEEKLY ENROLMENT)
AND TEACHERS EMPLOYED IN
GOVERNMENT AND NON-GOVERNMENT SCHOOLS
AUSTRALIA, 1947 TO 1958



A limited number of schools are conducted by other denominations, such as the Baptist, Congregational and Lutheran churches and by the Seventh-day Adventists. The Society of Friends conducts one school in Australia, the Friends' School, Hobart.

Jewish schools are conducted in several capital cities.

(iv) *Undenominational*. There are a number of undenominational schools in Australia. Some of the larger, although not State-operated, have Government nominees on their boards. They include Sydney Grammar School, the Hale School, Perth, and the eight Queensland grammar schools. Other undenominational schools operate under the auspices of corporate bodies, usually in the form of a limited liability company, while others are privately owned. The majority of schools in this last category are small kindergartens and primary schools.

§ 4. Pre-School Education.

1. *Types of Pre-School Centres*.—Free kindergartens were originally established in congested industrial areas and financed mainly by voluntary effort, but over the years the Commonwealth Government, the State Governments and some municipal councils have provided an increasing amount of financial assistance, and in addition themselves maintain pre-school centres in certain areas.

In 1938, the six Kindergarten Unions, the voluntary organizations which pioneered pre-school education in Australia, met to form a federal organization. Its title "Australian Association for Pre-school Child Development" was changed in 1954 to "Australian Pre-school Association". Its membership is now open to all organizations whose main objective is the care of the pre-school child, and includes bodies in the Australian Capital Territory, the Northern Territory, and the Territory of Papua and New Guinea.

The aim of the association is to promote the continuous advancement of pre-school movements throughout Australia. It sets out standards which act as a guide throughout Australia to those sponsoring pre-school centres, and is responsible for the administration of the six Lady Gowrie Child Centres. These centres are demonstration nursery schools which the Commonwealth Government established in each of the capital cities in 1940 and which are maintained by Commonwealth grants.

To-day, pre-school centres are found not only in inner city areas but also in suburban and country districts. Programmes are adapted to suit the areas in which the centres are situated. Types of pre-school centres include nursery kindergartens, crèches with full-day care for children of working mothers, play groups and play centres, occasional care centres and residential holiday homes.

There are only a limited number of State-subsidized pre-school centres and kindergartens conducted by public authorities and voluntary bodies such as the Kindergarten Unions. However, many children of pre-school age attend private non-subsidized nursery schools or kindergartens. No comprehensive statistics are available concerning the operations of pre-school centres and kindergartens.

2. *The Training of Teachers*.—Although the principle is that all types of pre-school work should be under the guidance of trained pre-school teachers, this cannot always be put into practice, owing to the shortage of teachers.

The Kindergarten Unions in all States except Tasmania have established teacher training colleges providing three year courses. The minimum entrance age is seventeen and the Leaving Certificate is usually required before admission. In addition, in New South Wales, the Sydney Day Nursery and Nursery Schools' Association maintains a training college and a two-year course for nursery teachers is available at the Sydney Teachers' College.

In Tasmania, prospective teachers complete a two-year course of training at one of the Education Department's pre-school centres. Those wishing to gain a Kindergarten Training College diploma must attend a college on the mainland.

Many students-in-training receive government scholarships, and others are sponsored by government departments or voluntary organizations.

3. *Kindergarten of the Air*.—The Kindergarten of the Air came into being in 1942 in Western Australia, where, under the stress of the war, kindergartens could not remain open. It was conducted by the Australian Broadcasting Commission and proved so successful that within a few years it was being broadcast throughout Australia and has inspired similar projects overseas. It consists of a daily programme of 25 minutes based on the interests of children from 3 to 5 years of age.

§ 5. Technical Education.

1. **General.**—In this section, technical education refers to that branch of education which is concerned with the preparation for entry to skilled occupations, including trades and professions. In the main, this education is vocational and is chiefly part-time, being carried out by the student while he is engaged in his occupation. The work of technical high schools, junior technical schools and other schools of this nature, which provide courses with a bias towards technical handwork, has been excluded, as these schools provide a form of education which is more properly regarded as secondary education.

The chief institutions for higher education other than the universities are the technical colleges, which are administered in five States by a division of the Education Department. In New South Wales, a separate Department of Technical Education has been established, and in Victoria a number of the foremost technical colleges are controlled by independent councils which, although responsible to the Minister of Education, enjoy a large measure of autonomy.

The technical colleges offer training not only in all the major industrial skills, but also in a variety of commercial, artistic and domestic occupations. Their courses may be divided into three main types, as follows:—

- (i) Diploma courses giving advanced training in the technical professions and other fields such as accountancy and art.
- (ii) Vocational courses, usually leading to the award of a certificate, for skilled technical and semi-professional workers. Many of these courses are in fields not covered by an apprenticeship award.
- (iii) Craftsman or artisan training in the apprenticeship trades.

The University of New South Wales (formerly the N.S.W. University of Technology) conducts a number of diploma courses on behalf of the Department of Technical Education.

A brief description of the expansion in technical training since the 1939–45 War appears in Official Year Book No. 43, page 449. The following table gives some indication of the growth of technical education in the years 1954 to 1958:—

TECHNICAL EDUCATION: AUSTRALIA.

Year.	No. of Colleges.	No. of Students.	No. of Teachers.(a)	Total. Expenditure.
				£
1954	148	168,923	7,149	9,245,560
1955	151	177,081	7,632	10,058,917
1956	164	(b)	8,364	11,395,445
1957	169	204,268	8,967	12,243,824
1958	171	(b)	9,765	13,813,071

(a) Includes both full-time and part-time teachers.

(b) Not available.

Training in certain technical aspects of agriculture such as farm mechanics, wool classing, and in related fields such as food technology is also provided by the technical colleges, while the seven State agricultural colleges (*see also* § 27 of Chapter XXII), located in all States except Tasmania, provide comprehensive agricultural courses of two to three years duration which lead to diplomas in agriculture. At some colleges, other diploma courses are offered in addition, including horticulture, dairying and dairy manufactures, food technology and oenology. The Queensland Agricultural High School and College is administered by the Department of Education; in other States, the Departments of Agriculture are responsible for administration of the colleges.

2. **Correspondence Training.**—Technical correspondence courses were first offered in Australia about 1910. During the period 1940 to 1944, technical correspondence schools were founded in each State in conjunction with the Commonwealth and these have become an important part of the system of technical education in the Australian States.

These schools not only offer a wide variety of correspondence courses, including trade and apprenticeship, rural, commercial and art courses, but, in addition, provide secondary courses up to matriculation or diploma entrance standard. Students who because of distance or working hours cannot attend technical college classes may enrol for these courses. In New South Wales, "mobile instructional units" consisting of rail cars equipped as self-contained workshops are used to provide practical experience for correspondence students, as well as for the instruction of apprentices and tradesmen at smaller country centres.

In 1955, the Royal Melbourne Technical College established a shortwave broadcasting station to provide further tuition for its correspondence students.

An interesting recent development in technical correspondence education, in which the Australian technical colleges are co-operating with the Commonwealth Government, is the correspondence scholarship scheme operating under the Colombo Plan. Through this scheme, South and South-east Asian students may take correspondence courses conducted by the technical colleges and by the University of Queensland, which has a highly organized system of external tuition. Courses include commercial, rural and teacher-training, engineering and other technical courses. Where practical training is required as part of the course, it is taken by the student in his own country.

3. **Teacher Training.**—Prior to the 1939–45 War, technical colleges were staffed chiefly by men drawn from two sources. They were either trained teachers in the employment of the Education Department or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers. In order to remedy this, there has been a move to develop schemes of training technical college teachers without breaking the important link provided by recruiting specialist tradesmen to teach in the colleges. In Victoria, the Technical Teacher's College provides training for students with the appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales, technical college lecturers and tradesmen-instructors receive an in-service course of teacher training in both general educational theory and teaching method, and correspondence courses and visiting lecturers care for the newly appointed teacher-instructor in country colleges. Modifications of this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers' certificates from teachers' colleges.

4. **Colleges, Teachers and Students.**—The number of colleges, teachers and enrolments of individual students during the years 1954 to 1958 are given in the following table:—

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS.

State.	Colleges.	Teachers.			Individual Students Enrolled.		
		Full-time.	Part-time.	Total.	Males.	Females.	Persons.
New South Wales(a)—							
1954	42	1,064	1,037	2,101	40,718	20,796	61,514
1955	42	1,162	1,102	2,264	43,595	21,890	65,485
1956	45	1,197	1,265	2,462	(b)	(b)	(b)
1957	45	1,240	1,291	2,531	(b)	(b)	(c) 77,673
1958	48	1,259	1,337	2,596	(b)	(b)	(b)
Victoria							
1954	43	1,712	1,199	2,911	34,900	14,778	49,678
1955	45	1,808	1,346	3,154	37,152	15,374	52,526
1956	47	2,026	1,484	3,510	39,796	14,784	54,580
1957	50	2,209	1,553	3,767	42,224	16,082	58,306
1958	54	2,382	1,488	3,870	45,653	17,215	62,868
Queensland—							
1954	12	147	403	550	12,200	4,420	16,620
1955	12	161	423	584	12,067	4,555	16,622
1956	13	165	402	567	12,478	4,461	16,939
1957	13	167	410	577	12,728	4,469	17,197
1958	13	166	568	734	13,422	4,792	18,214
South Australia—(a)							
1954	26	212	549	761	11,922	6,799	18,721
1955	27	205	530	735	12,675	6,947	19,622
1956	28	267	583	850	13,478	7,841	21,319
1957	30	274	663	937	15,123	8,300	23,423
1958	25	280	770	1,050	16,991	8,570	25,561
Western Australia—							
1954	16	203	278	481	9,670	5,948	15,618
1955	18	200	337	537	10,946	6,341	17,287
1956	24	237	339	576	12,100	6,703	18,803
1957	24	257	430	687	13,519	7,512	21,031
1958	23	278	735	1,013	15,977	8,436	24,413
Tasmania—							
1954	9	71	274	345	3,890	2,882	6,772
1955	7	73	285	358	3,394	2,145	5,539
1956	7	79	320	399	3,583	2,153	5,736
1957	7	85	383	468	4,423	2,215	6,638
1958	8	98	404	502	(b)	(b)	6,979
Total—							
1954	148	3,409	3,740	7,149	113,300	55,623	168,923
1955	151	3,609	4,023	7,632	119,829	57,252	177,081
1956	164	3,971	4,393	8,364	(b)	(b)	(b)
1957	169	4,232	4,735	8,967	(b)	(b)	204,268
1958	171	4,463	5,302	9,765	(b)	(b)	(b)

(a) Excludes correspondence students. The figures for 1954 represent enrolment in courses
 (b) Not available. (c) Estimated.

5. **Expenditure.**—The expenditure on technical education in each State for 1958 is shown in the following table:—

TECHNICAL EDUCATION: EXPENDITURE, 1958.

(Including Loan Fund Expenditure.)

(£.)

State.	Salaries and Maintenance.	Equipment.	Buildings.	Gross Expenditure.(a)	Receipts—Fees, etc.	Net Expenditure.
New South Wales ..	3,218,037	137,983	891,543	4,249,304	494,440	3,754,864
Victoria(b)(c) ..	3,952,542	108,572	1,060,580	6,005,558	539,246	5,466,312
Queensland ..	581,675	174,992	161,869	918,536	53,828	864,708
South Australia ..	786,075	(d)	630,075	1,416,175	116,252	1,299,923
Western Australia(c) ..	718,980	(d)	68,511	787,491	58,446	729,045
Tasmania ..	242,126	25,973	16,620	285,860	(f)	(f)
Aust. Capital Terr.(c) ..	46,398	2,217	..	53,395	6,060	47,335
Australia(e) ..	9,545,833	449,737	2,829,198	13,716,319	(f)	(f)

(a) The differences between amounts shown in this column and the sums of the three preceding columns represent expenditure on other items. (b) Includes expenditure on Junior Technical Schools. In other States, this type of expenditure is included with expenditure on Government schools. (c) Year ended June, 1958. (d) Included with salaries and maintenance. (e) There is no technical college in the Northern Territory. (f) Not available.

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Councils. The expenditure on buildings is financed largely from loan moneys, the sums provided from this source in 1958 being: New South Wales, £754,604; Victoria, £1,060,580; Queensland, £137,067; South Australia, £598,052; Western Australia, £37,968; Tasmania, nil.

§ 6. Commonwealth Activities.

Although the primary responsibility for education rests with the States, the Commonwealth Government is committed to a number of educational activities related to its other functions. For example, it maintains officer training colleges and education services for each of its defence services, a School of Pacific Administration for the training of Administrative and other officers for service in Commonwealth Territories, and a School of Forestry. In each of the Australian Territories, the educational programme provides for both the native and white children who live there. References to these programmes appear in Chapter V.—The Territories of Australia.

The Australian Broadcasting Commission features school broadcasts and other educational broadcasts as part of its daily programmes. The Commonwealth Scientific and Industrial Research Organization undertakes research, the results of which are made available to educational institutions. Under the Commonwealth Reconstruction Training Scheme, many ex-servicemen and women have received training which has enabled them to enter a variety of trades and professions.

The Commonwealth Office of Education, established under the Education Act 1945, acts as the Commonwealth's educational adviser, undertakes research work as Commonwealth activities require and is the channel for liaison between Commonwealth and State educational authorities. This office has responsibilities with regard to the education of migrants, international relations, including the association of Australia with the aims and activities of the United Nations Educational, Scientific and Cultural Organization, (UNESCO), and the provision of scholarships and fellowships for selected students under the Technical Co-operation Scheme (Colombo Plan) and under the scheme known as Australian International Awards. The office also acts as a co-ordinating body in the administration of the British Commonwealth Scholarship and Fellowship Plan.

The activities of the Commonwealth Scholarships Board, which was formerly known as the Universities Commission, are described in § 8, para. 5 of this Chapter.

The Commonwealth assists a number of other bodies concerned with education. Besides grants to organizations such as the Australian Council for Educational Research, grants are made to the States for payment to universities.

Further details of Commonwealth assistance to students (including the Commonwealth Scholarship Scheme) and of grants for universities are given in § 8, para. 5 of this chapter.

§ 7. Australia and International Relations in Education.

Australia has always been responsive to educational developments in overseas countries, particularly those in the United Kingdom, but it is only recently that it has begun to make any considerable impact on educational thought overseas.

In this connexion, there have been important developments since the 1939-45 War. For instance, there has been a remarkable increase in the volume of information on educational matters exchanged between Australia and South-east Asia, and Australia participates in the Technical Co-operation Scheme (Colombo Plan), the United Nations Technical Assistance programme, the cultural programme of SEATO, and the scheme of Australian International Awards, under which a limited number of scholarships are given annually. Australia also participates in the British Commonwealth Scholarship and Fellowship Plan.

Perhaps the most important single factor behind the quickening of Australian interest in international cultural affairs has been membership of UNESCO. Australia has been a member since 1946. Twelve expert committees in Australia are responsible for a wide and varied programme of activities on behalf of UNESCO. Their advice has helped to make Australia's contribution to international conferences and seminars highly effective. Other work undertaken by these committees has included the provision of technical material and advice to the countries of South and South-east Asia, the conducting of seminars in Australia, arranging for exhibitions and displays in Australia and overseas, and the publication of handbooks and brochures to assist teachers and other persons in meeting the problems involved in educating for international understanding.

The Australian National Advisory Committee for UNESCO, on which all the other committees are represented, advises the Commonwealth Government and co-ordinates the work of the specialist committees.

§ 8. Universities.

1. **General.**—There are at present, nine universities and two university colleges in Australia. The following list shows the date of foundation and the faculties existing at each university in Australia.

University of Sydney, established in 1850, located in Sydney, New South Wales. Agriculture, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Science, Veterinary Science.

University of Melbourne, established in 1853, located in Melbourne, Victoria. Agriculture, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Music, Science.

University of Adelaide, established in 1874, located in Adelaide, South Australia. Agricultural Science, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Music, Science, Technology.

University of Tasmania, established in 1890, located in Hobart, Tasmania. Arts, Commerce, Engineering, Law, Science.

University of Queensland, established in 1909, located in Brisbane, Queensland. Agriculture, Architecture, Arts, Dentistry, Economics and Commerce, Education, Engineering, Law, Medicine, Science, Veterinary Science.

University of Western Australia, established in 1912, located at Nedlands, Perth, Western Australia. Agriculture, Arts, Dental Science, Education, Economics, Engineering, Law, Medicine, Science.

Australian National University, established in 1946. A post-graduate research institution, located in Canberra, A.C.T. John Curtin School of Medical Research, the Research School of Physical Sciences, the Research School of Social Sciences, the Research School of Pacific Studies.

University of New South Wales, established in 1958 (1948 established as New South Wales University of Technology), located at Kensington, Sydney, New South Wales. Architecture, Commerce, Engineering, Humanities and Social Sciences, Science, Technology. The University also provides part-time instruction in science and engineering at technical colleges in country towns in New South Wales.

University of New England, established in 1954, (1938 established as New England University College), located in Armidale, New South Wales. Agricultural Economics, Arts, Rural Science, Science.

There are also two university colleges in Australia:—Canberra University College, founded in 1930, located in Canberra, Australian Capital Territory, was associated with the University of Melbourne until early in 1960 when it was associated with the Australian National

University. It has degree courses in Arts, Economics, Law and Science; and Newcastle University College, founded in 1951, located in Newcastle, New South Wales, is affiliated with the University of New South Wales and has degree and diploma courses in the faculties of Commerce, Engineering, Technology and Science, and diploma courses in the faculties of Architecture, and Humanities and Social Sciences. The Arts courses at the Newcastle University College are provided by the University of New England in co-operation with the University of New South Wales.

A second university in Victoria, Monash University, is at present in course of establishment. Under the Monash University Act, an interim council was appointed in May, 1958, by the Governor-in-Council and includes representatives of academic, scientific and industrial interests, together with three *ex officio* members—the Vice-Chancellor, the Director of Education and the Chief Inspector of Technical Schools in Victoria. The Act provides for training in Agriculture, Arts, Applied Science and Technology, Commerce, Education, Engineering, Law, Letters, Medicine, Pure Science, and Veterinary Science. The University is also to provide facilities for university education throughout Victoria by the affiliation of other educational institutions and by the establishment of tutorial correspondence and vacation classes.

2.—**Expansion within the Universities.**—Within the past 20 years, the appearance of some of the universities has altered to a striking extent. Many new permanent buildings and some temporary ones have been erected and new wings have been added. The universities are expanding their accommodation greatly to meet an expected record enrolment in the next decade.

There was a continuing increase in university enrolments from 1929 (approximately 9,000) to 1940 followed by a slight recession. In the closing year of the 1939–45 War, however, the number of students had risen beyond any previous figure, and rapid post-war expansion was responsible for a peak enrolment of 32,453 students in 1948. After 1948, the numbers decreased each year until 1953 as ex-service personnel completed their training under the Commonwealth Reconstruction Training Scheme. Thereafter, enrolments increased again and it is expected that they will continue to increase rapidly. Enrolments in 1958 were 41,865.

3. **Courses.**—A brief survey of developments in university courses since the war and up to 1954 was given in Official Year Book No. 42 (p. 476). An outline of some developments during 1955 and 1956 appeared in Year Book No. 43 (p. 453), and one for 1957 in Year Book No. 44 (p. 466).

At the University of New England, a four year degree course in Agricultural Economics commenced in 1958.

At the University of Sydney, a course in Criminology is under consideration.

At the University of New South Wales, the establishment of faculties of Medicine and Arts are under consideration, and it is expected that the first year course in Arts will commence in 1960. Several new types of courses have been instituted at this University since 1958—a Bachelor of Science course in Industrial Arts, and in Fuel Technology; a Bachelor of Commerce course in Industrial Relations, and in Wool Commerce; a Bachelor of Engineering course in Naval Architecture; and Master of Technology courses in Civil Engineering, and in Highway and Traffic Engineering.

At the University of Western Australia, the subjects available in the Faculty of Medicine were increased in 1959 to include all six years of the course.

For the majority of university courses, full-time attendance is required. At most universities, however, certain courses, such as arts, commerce and economics, may also be undertaken by part-time or evening study. At the University of New South Wales, a variety of degree courses are available to evening students.

Several universities have limited systems of external tuition whereby students in country areas may take a restricted number of courses by correspondence. The University of Queensland has developed a system of correspondence tuition which now caters not only for students within the State but for those in the Northern Territory, Papua and New Guinea and adjacent Pacific islands. External students within Queensland receive tutorial assistance at university centres in the principal country towns. In addition, the university co-operates in the Colombo Plan Correspondence Scholarship Scheme (see p. 597).

The University of New England's Department of External Studies offers a wide range of subjects for external study, leading to the degree of Bachelor of Arts and the Diploma in Education. External students must attend short annual residential schools of instruction in their subjects, usually held at the university.

4. **Research.**—A wide range of research work is carried out by the Universities as part of their normal functions. The research activities of the universities have been greatly stimulated over recent years by the interest and assistance of the Commonwealth and State Governments, government instrumentalities such as the Commonwealth Bank, the Rural

Bank of New South Wales, and the C.S.I.R.O., private foundations, both over sea and Australian, such as the Nuffield Foundation, the Carnegie Corporation and the Water Research Foundation of Australia, and industrial undertakings. Details of research work carried out at each university can be obtained from its calendar or research report.

Grants are made by the Commonwealth Government to bodies such as the Post-Graduate Committee in Medicine at the University of Sydney to facilitate arrangements for medical specialists from overseas to lecture and demonstrate advanced techniques in Australia.

Grants have been made by the Commonwealth Government, through the Australian Atomic Energy Commission, to a number of Australian universities for nuclear research.

The further expansion of teaching and research in various agricultural and veterinary fields was assisted by the annual and special grants of the Commonwealth Bank's Rural Credits Development Fund to several Australian universities. The C.S.I.R.O. also contributed to research in these and other fields.

5. *The Commonwealth and the Universities*—(i) *General*. The Commonwealth has given support to the Australian universities for many years. Prior to 1939, Commonwealth assistance was almost entirely concerned with research projects carried out by or in collaboration with the universities. During and since the 1939–45 War, the Commonwealth extended assistance to university students, at first to increase the number of highly trained people required for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service benefit to the community. For the purpose of reconstruction training, the Commonwealth Government made available to the universities approximately £1 million for buildings and £500,000 for equipment. Since 1951, the Commonwealth has made special grants to the States for their universities and during the same time has continued to support the university institutions for which it is responsible.

(ii) *Assistance to Students*. Up to 1945, the Universities Commission functioned under National Security Regulations but in that year it was established on a permanent basis under the Education Act. After the 1939–45 War, the Commission continued to provide financial assistance to students under an interim scheme until 1951, when the interim scheme was superseded by the Commonwealth Scholarships Scheme.

Under this scheme, 3,000 scholarships are allocated annually to the States on a population basis. These scholarships are tenable at universities and other approved institutions. Awards are made on merit and all successful applicants have their fees paid. In addition, scholarship holders may be paid a living allowance subject to a means test. As from 1st January, 1959, the maximum rates of allowance are £338 per annum for a scholar living away from home and £221 per annum in the case where he lives at home.

At 30th September, 1959, 13,049 scholars had completed courses of training under the Scheme. At the same date, there were 11,256 scholars in training of whom 10,209 were at universities and 1,047 at other institutions.

As from 1st January, 1959, post-graduate awards for training at Australian Universities were made available under the Scheme. One hundred awards were granted in 1959 and a similar number will be available each year. The benefits comprise a living allowance without a means test and payment to universities for tuition and facilities.

The Commonwealth Scholarships Board, which was formerly known as the Universities Commission, also provides for the training at universities and similar institutions of ex-service personnel and war widows under the Reconstruction Training Scheme, the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme. A detailed description of the Reconstruction Training Scheme was given on page 240 of Official Year Book No. 39. At 30th June, 1959, 21,478 students had completed courses under these schemes and at the same date there were 71 in training.

(iii) *Commonwealth Grants to the States for University Purposes*. Following a report submitted by a committee of enquiry appointed to report on university finances and requirements, the Commonwealth since 1951 has made grants to the States for recurrent expenditure on university purposes. The payments have been made under the various States Grants (Universities) Acts.*

In 1957, the Prime Minister appointed a committee to investigate the problems of Australian universities. The Committee was given wide terms of reference. Among other things, it was asked to consider the role of the university in the Australian community, the extension and co-ordination of university facilities, technological education at university level, the financial needs of universities and appropriate means of providing for those needs, and the Commonwealth Scholarship Scheme.

* No. 81 of 1951; No. 75 of 1953; No. 28 of 1955; No. 37 of 1956 and No. 7 of 1957.

In accepting the principal recommendations of the Committee (Murray Report)* the Commonwealth agreed to continue grants for recurrent expenditure in 1958, 1959 and 1960, to make additional unmatched recurrent grants, and to assist with the capital needs of the universities for building projects and for equipment. The Commonwealth is also to provide grants between 1958 and 1960 for the building programmes of residential colleges affiliated with universities.

The States Grants (Universities) Act No. 27 of 1958 operated from 1st January, 1958, and gave effect to these recommendations. This Act amended those parts of the States Grants (Universities) Act No. 7 of 1957 which referred to 1958 and provided for payments for 1957 to the South Australian School of Mines and Industries (now the South Australian Institute of Technology).

Under the Australian Universities Commission Act No. 30 of 1959, the Australian Universities Commission was established. Its principal functions are to advise the Prime Minister on financial assistance to Commonwealth Universities and to States in relation to their Universities and also on the balanced development of Australian Universities. The Commission commenced its work in July, 1959.

The maximum Commonwealth recurrent grants for 1959 are shown in the following table:—

RECURRENT COMMONWEALTH GRANTS TO UNIVERSITIES, 1959.
(£.)

University.	Emergency Grant for Recurrent Expenditure.	Amount to be paid from (2) for Teaching and Administrative Costs of Residential Colleges.	General Grant for Recurrent Expenditure.	Amount to be paid from (4) for Teaching and Administrative Costs of Residential Colleges.
(1)	(2)	(3)	(4)	(5)
New South Wales—				
The University of Sydney ..	360,000	9,150	749,350	14,800
The University of New South Wales ..	172,500	3,000	368,900	4,800
The University of New England ..	49,500	2,625	82,650	4,200
Victoria—				
University of Melbourne ..	322,500	9,000	657,600	14,500
Queensland—				
University of Queensland ..	202,500	6,300	385,400	10,100
South Australia—				
The University of Adelaide ..	193,500	3,900	357,400	6,300
The South Australian Institute of Technology .. ..	..	..	43,350	350
Western Australia—				
The University of Western Australia	135,000	2,700	245,300	4,400
Tasmania—				
The University of Tasmania ..	64,500	825	122,950	1,300
Total	1,500,000	37,500	3,012,900	60,750

The emergency grant for recurrent expenditure (column 2) is an unmatched grant aimed at assisting the universities to meet some of their most urgent deficiencies in staff and equipment. The general grant for recurrent expenditure is a continuation of matched grants provided since 1951 and the maximum amount available in 1959 is shown in column 4. In general terms, the matched grants are made on a basis of £1 of Commonwealth money for every £3 of income received by a university from fees and State grants.

Columns 3 and 5 of the above table show the amounts which are required to be paid by each university from the emergency and the general recurrent grants, respectively, for the teaching and administrative costs of residential colleges administered by or affiliated with the university.

* Report of the Committee on Australian Universities (Canberra, Commonwealth Government Printer, 1957).

Provision is made in the States Grants (Universities) Act No. 27 of 1958 for these grants to be paid at a higher level in 1960.

Between 1958 and 1960, the Commonwealth will make grants for selected building projects, shown in detail in the Third Schedule to the Act. Payments are made up to a given maximum for each project, in the same proportion to State grants for these projects as that shown in the totals given for each university in the following table:—

COMMONWEALTH GRANTS FOR UNIVERSITY BUILDING PROJECTS, ETC.
(£.)

University.	Commonwealth Contribution.	State Contribution.
New South Wales—		
The University of Sydney	1,300,000	750,000
The University of New South Wales	950,000	1,500,000
The University of New England	450,000	450,000
Victoria—		
University of Melbourne	875,000	875,000
Monash University	75,000	75,000
Queensland—		
University of Queensland	775,000	775,000
South Australia—		
The University of Adelaide	375,000	375,000
Western Australia—		
The University of Western Australia	630,000	505,000
Tasmania—		
The University of Tasmania	840,000	670,000
Total	6,270,000	5,975,000

In addition a grant of 16 per cent. of the cost to the Commonwealth of each project is to be made for equipment.

The Commonwealth is also to make grants for capital buildings for residential colleges affiliated with a university. The Commonwealth will make grants of one half of the cost, at the request of a State, for the purchase, erection or alteration of a building at an affiliated residential college. The maximum amount available for distribution in each State in the period 1958–60 is shown in the following table:—

MAXIMUM COMMONWEALTH GRANTS FOR RESIDENTIAL COLLEGE BUILDINGS.
(£.)

State.	Maximum Grant.
New South Wales	180,000
Victoria	170,000
Queensland	110,000
South Australia	80,000
Western Australia	40,000
Tasmania	20,000
Total	600,000

The grants for capital building projects at universities and residential colleges are payable at any time within the period 1958-60.

6. **Teaching and Research Staff.**—The following table shows particulars of the teaching and research staff of Australian universities during 1958:—

UNIVERSITIES: TEACHING AND RESEARCH STAFF, 1958.

University or College.	Pro-fessors.	Readers. (a)	Lecturers.(b)		Demonstrators, Tutors and Research Assistants.		Honorary Lec-turers and Demon-strators.	Total.
			Full-time.	Part-time.	Full-time.	Part-time.(c)		
Australian National University	22	18	(d) 90	..	19	4	..	153
Sydney	56	41	409	246	98	106	49	1,005
New South Wales	21	16	366	292	(e) 125	..	1	821
New England	13	12	81	11	22	..	(f) 4	142
Melbourne	49	61	260	65	117	101	..	653
Queensland	32	35	169	209	64	28	(g) 34	571
Adelaide	36	39	158	62	28	106	..	429
Western Australia	27	24	101	53	4	39	..	248
Tasmania	18	9	54	10	8	..	..	99
Canberra University College	18	1	45	12	5	7	..	88
Total	292	256	1,733	960	490	391	88	4,210

(a) Includes associate professors, assistant professors and lecturers-in-charge. (b) Includes senior lecturers and assistant lecturers. (c) Excludes part-time demonstrators. (d) Senior fellows, fellows and research fellows. (e) Includes technical officers. (f) Includes 3 Department of External Studies. (g) Department of External Studies.

The following table gives details of the teaching and research staff of Australian universities for each year from 1954 to 1958:—

UNIVERSITIES: TEACHING AND RESEARCH STAFF, SUMMARY, AUSTRALIA.

Year.	Pro-fessors.	Readers. (a)	Lecturers.(b)		Demonstrators, Tutors and Research Assistants.		Honorary Lec-turers and Demon-strators.	External Studies Staff.	Total.
			Full-time.	Part-time.	Full-time.	Part-time.(c)			
1954	227	169	1,227	1,099	300	303	60	26	3,411
1955	245	177	1,290	1,062	290	321	66	29	3,480
1956	265	196	1,383	1,031	(d) 400	349	49	29	3,702
1957	274	229	1,494	936	(d) 410	346	50	30	3,769
1958	292	256	1,733	960	(d) 490	391	51	37	4,210

(a) Includes associate professors, assistant professors and lecturers-in-charge. (b) Includes senior lecturers, assistant lecturers, senior fellows, fellows and research fellows. (c) Excludes part-time demonstrators. (d) Includes technical officers of the University of New South Wales.

7. **Students.**—(i) Total. The number of students enrolled for courses at the universities for the year 1958 is shown in the following table:—

UNIVERSITIES: STUDENTS ENROLLED, 1958.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
		Post-graduate.	Sub-graduate.			
Australian National University ..	93	..	..	..	2	95
Sydney	7,746	145	968	..	187	8,996
New South Wales	2,447	..	3,218	133	239	6,014
New England	1,425	98	..	..	51	1,567
Melbourne	8,070	270	327	158	559	9,020
Queensland	4,628	41	733	955	386	6,718
Adelaide	3,588	141	835	11	705	5,189
Western Australia	2,456	95	..	..	107	2,655
Tasmania	812	56	61	170	69	1,138
Canberra University College ..	327	..	26	..	126	473
Total	31,592	846	6,168	1,427	2,431	41,865

(a) Adjustment made for students enrolled for more than one course.

Of the students enrolled in 1958, 32,642 were males and 9,223 females. Included in those enrolled for degrees were 93 enrolled for higher degree courses at the Australian National University, 261 in Sydney, 297 at the University of New South Wales, 55 at the University of New England, 305 in Melbourne, 184 in Queensland, 221 in Adelaide, 184 in Western Australia, 36 in Tasmania, and 36 at the Canberra University College.

The following table shows the number of students enrolled at Australian universities for each of the years from 1954 to 1958:—

UNIVERSITIES: STUDENTS ENROLLED, SUMMARY, AUSTRALIA.

Year.	Degree Courses.		Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
	Higher Degrees.	Bachelor Degrees.	Post-graduate.	Sub-graduate.			
1954	917	20,358	315	5,093	677	2,191	29,445
1955	1,094	21,539	321	5,153	801	2,130	30,868
1956	1,188	23,686	550	5,977	1,025	2,206	34,480
1957	1,357	26,153	735	5,834	1,135	2,006	36,903
1958	1,672	29,920	846	6,168	1,427	2,431	41,865

(a) Adjustment made for students enrolled for more than one course.

(ii) *New Students Enrolled.* The number of new students enrolled for courses at the universities during the year 1958 is shown in the following table:—

UNIVERSITIES: NEW STUDENTS ENROLLED, 1958.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
		Post-graduate.	Sub-graduate.			
Australian National University ..	44	..	..	..	2	46
Sydney	2,218	20	307	..	81	2,626
New South Wales	811	..	708	70	183	1,772
New England	699	43	..	..	35	776
Melbourne	2,253	21	109	8	247	2,512
Queensland	1,233	1	247	309	230	2,017
Adelaide	865	4	265	..	272	1,378
Western Australia	669	3	..	..	35	707
Tasmania	220	..	15	70	33	337
Canberra University College ..	135	..	6	..	76	216
Total	9,147	92	1,657	457	1,194	12,387

(a) Adjustment made for students enrolled for more than one course.

Of the new students enrolled in 1958, 9,147 were males and 3,240 females. Included in those enrolled for degrees were 211 enrolled for higher degree courses—Australian National University 44, Sydney 26, University of New South Wales 44, New England 12, Melbourne 35, Queensland 11, Adelaide 13, Western Australia 7, Tasmania 3 and Canberra University College 16.

The following table shows the number of new students enrolled at Australian universities during each of the years from 1954 to 1958:—

UNIVERSITIES: NEW STUDENTS ENROLLED, SUMMARY, AUSTRALIA.

Year.	Degree Courses.		Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
	Higher Degrees.	Bachelor Degrees.	Post-graduate.	Sub-graduate.			
1954	137	4,951	37	1,265	175	860	7,420
1955	125	5,791	55	1,412	254	926	8,549
1956	134	6,881	112	2,184	317	976	10,590
1957	119	7,401	121	1,601	333	874	10,418
1958	211	8,936	92	1,657	457	1,194	12,387

(a) Adjustment made for students enrolled for more than one course.

8. *Principal University Benefactions.*—Earlier issues of the *Official Year Book* included details of the principal private benefactions to universities. (See *Year Book No. 40*, pp. 467–8.)

9. *University Income for General Activities.*—The income of the universities is derived principally from State and Commonwealth Government grants, students' fees, and income from private foundations. From all sources other than new bequests, the income during 1958 for general university functions was as shown in the table below. In South Australia, Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute.

UNIVERSITIES: INCOME FOR GENERAL ACTIVITIES, 1958.

(£.)

University or College.	Government Grants.	Students' Fees.	Interest, Rent, Dividends and Donations.	Other.	Total.
Australian National University	1,751,650	889	50,045	77,458	1,880,042
Sydney	1,971,034	699,819	74,954	53,723	2,799,530
New South Wales	2,706,195	230,299	..	71,078	3,007,572
New England	591,863	48,938	1,210	81,552	723,563
Melbourne	1,869,604	587,435	58,830	49,417	2,565,286
Queensland	1,131,312	279,114	28,738	23,230	1,462,394
Adelaide	1,480,280	144,472	51,233	10,852	1,686,837
Western Australia	947,519	45,896	31,347	48,819	1,073,581
Tasmania	446,972	41,331	728	5,561	494,592
Canberra University College..	207,340	12,398	..	1,039	220,777
Total	13,103,769	2,090,591	297,085	422,729	15,914,174

10. *University Expenditure for General Activities.*—The principal item of disbursements on general university activities is the maintenance of the teaching and research staff, representing 65.9 per cent. of the total in 1958 compared with 66.0 per cent. in 1957.

The following table shows the expenditure including capital expenditure during the year 1958:—

UNIVERSITIES: EXPENDITURE FOR GENERAL ACTIVITIES, 1958.

(£.)

University or College.	Adminis- tration.	Maintenance of—			Other (including Buildings.)	Total.
		Teaching and Research Depart- ments.	Premises and Grounds.	Libraries.		
Australian National University	138,013	1,085,003	160,053	52,584	482,613	1,918,266
Sydney	293,115	1,826,069	302,314	81,243	105,174	2,607,915
New South Wales	194,808	1,663,048	205,647	73,753	462,802	2,600,058
New England	98,714	359,638	54,596	37,953	160,394	711,295
Melbourne	200,256	1,784,101	255,316	93,903	205,475	2,539,051
Queensland	112,413	1,132,067	91,837	66,313	41,487	1,444,117
Adelaide	128,623	1,064,092	122,295	73,718	340,381	1,729,109
Western Australia	82,952	760,701	82,134	57,181	115,561	1,098,529
Tasmania	57,360	345,103	31,524	35,480	76,644	546,111
Canberra University College..	34,787	133,926	11,862	27,539	10,311	218,425
Total	1,341,041	10,153,748	1,317,578	599,667	2,000,842	15,412,876

11. *Funds for Special Purposes.*—(i) *General.* The tables shown in paras. 9 and 10 relate to general university activities while the two which follow show the financial position of the special purpose funds which are, in the main, for special research purposes.

(ii) *Income for Special Purposes.* The following table shows the main items of income for the year 1958:—

UNIVERSITIES: INCOME FOR SPECIAL PURPOSES, 1958.

(£.)

University or College.	Govern- ment Grants.	Interest, Rent, Dividends and Donations.	Public Examina- tion Fees.	Special Research Grants.	Other.	Total.
Australian National University	..	8,495	..	39,758	116	48,369
Sydney	989,420	73,421	..	662,951	15,639	1,741,431
New South Wales .. .. .	..	152,636	..	61,765	18,475	232,876
New England	300,000	5,656	..	20,425	113,188	439,269
Melbourne	130,342	168,901	126,479	211,949	100,143	737,814
Queensland	1,000	45,596	59,378	71,805	31,372	209,151
Adelaide	39,223	53,140	40,911	126,508	21,761	281,543
Western Australia	388,360	76,358	41,489	77,754	19,697	603,658
Tasmania	62,187	5,478	5,971	18,835	287	92,758
Canberra University College ..	40,250	60	..	1,450	..	41,760
Total	1,950,782	589,741	274,228	1,293,200	320,678	4,428,629

(iii) *Expenditure for Special Purposes.* The following table shows the main items of expenditure for the year 1958:—

UNIVERSITIES: EXPENDITURE FOR SPECIAL PURPOSES, 1958.
(£.)

University or College.	Special Purpose Funds (Research)	Other Special Purposes.	Public Examination Expenses.	Scholarships, Bursaries, etc.	Other (including Buildings).	Total.
Australian National University	..	..	..	5,802	27,956	33,758
Sydney	336,651	207,797	..	21,032	949,999	1,515,479
New South Wales	76,991	205,448	..	17,469	..	299,908
New England	30,329	3,277	..	452	488,226	522,284
Melbourne	203,084	189,250	110,042	7,690	517,578	1,027,644
Queensland	73,739	64,986	79,414	6,307	13,400	237,846
Adelaide	161,511	49,955	36,862	4,635	..	252,963
Western Australia	61,296	33,429	38,912	30,968	456,120	620,725
Tasmania	26,179	..	5,104	2,708	..	33,991
Canberra University College ..	2,113	28,250	..	8,770	..	39,133
Total	971,893	782,392	270,334	105,833	2,453,279	4,583,731

12. *Degrees Conferred, etc.*—The following table shows the number of degrees conferred and diplomas and certificates granted for males and females separately at each university during the year 1958:—

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, 1958.

Course.	Aust. National Univ.		Sydney.		New South Wales.		New England.		Melbourne. (a)		Queensland.		Adelaide.		Western Australia.		Tasmania.		Australia.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—																				
Agriculture .. .. .	..	..	35	4	..	..	..	..	31	4	12	1	14	..	17	..	..	..	109	9
Architecture .. .. .	..	..	17	1	7	..	..	..	25	8	8	..	..	..	..	..	..	..	57	9
Arts	4	2	205	157	..	..	41	28	162	144	56	43	36	23	77	34	36	26	617	457
Dentistry .. .. .	..	..	51	5	..	..	..	..	25	5	30	1	2	..	8	1	..	..	116	12
Divinity .. .. .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Economics .. .. .	..	..	58	3	..	..	..	..	80	10	36	3	25	1	1	..	11	..	211	17
Education .. .. .	..	..	3	..	..	..	..	..	58	12	24	1	..	..	26	1	..	..	111	14
Engineering .. .. .	..	..	97	10	92	..	..	..	101	..	49	..	40	..	48	..	3	..	430	..
Law .. .. .	..	..	73	10	..	..	..	..	71	11	15	..	13	2	3	..	5	..	180	23
Medicine(b)	1	..	135	27	..	..	..	..	122	17	54	10	55	12	..	..	..	..	367	66
Music .. .. .	..	..	..	..	..	..	..	..	7	12	..	..	1	..	..	..	..	..	8	12
Science	5	..	104	42	126	1	11	2	126	29	89	24	77	19	61	10	40	7	639	134
Veterinary Science .. .. .	..	..	29	2	..	..	..	..	..	..	13	2	..	..	..	..	..	..	42	4
Technology .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	39	..	..	..	..	..	39	..
Total	10	2	807	251	225	1	52	30	808	252	387	85	302	57	241	46	95	33	2,927	757
Post-graduate Diplomas—																				
Education .. .. .	..	..	38	47	..	..	39	46	20	13	13	17	16	6	39	13	13	6	178	148
Medicine .. .. .	..	..	19	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	24	..
Other .. .. .	..	..	..	..	..	..	..	..	1	..	4	..	..	..	1	1	..	..	6	1
Total .. .. .	..	..	57	47	..	..	39	46	26	13	17	17	16	6	40	14	13	6	208	149
Sub-graduate Diplomas	..	..	14	23	..	..	..	..	15	30	36	35	60	58	..	..	1	..	126	146
Certificates .. .. .	..	..	..	..	..	..	..	..	..	89	20	1	..	..	..	..	3	5	93	25

(a) Includes degrees conferred on students of the Canberra University College.
of B.S. degrees conferred.

(b) Excludes the number

§ 9. Other Aspects of Education.

1. **General.**—Beyond the schools, colleges and universities, there are agencies engaged in less direct educational work which cannot be readily assessed and described. Among these are such things as press, film, radio and television, which are powerful educational forces—whether they are used specifically to disseminate information such as new agricultural techniques or preventative health measures, or, on the other hand, in a much more general way to exert an influence on the cultural level of the population. There are also bodies and institutions such as the adult education authorities, libraries, art galleries and museums which aim at catering for the educational and cultural needs of the general public.

2. **Adult Education.**—(i) *General.* The term “adult education” is used in Australia to refer in the main to non-vocational educational and cultural activities for adults provided by some of the universities and by various adult education authorities, which vary in form from State to State.

The Workers' Educational Association movement, which has for its object the bringing of the universities into closer relationship with the community in general and providing for higher education in civic and cultural subjects, has been active in Australia. In 1913, associations were formed in all the Australian States. In four States, the associations have been superseded by Adult Education Boards or Councils—set up by the State Governments in Victoria, Queensland and Tasmania and by the university in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the governments concerned.

While the choice of courses offered by these bodies is naturally more limited in the smaller States, a variety of topics including social studies and current affairs, language and literature, drama, music, arts and crafts are available in all States.

(ii) *New South Wales:* (a) *Adult Education Advisory Board.*—State Government grants for adult education are allocated by the Adult Education Advisory Board. Grants are made to the University of Sydney (Department of Tutorial Classes), the Workers' Educational Association, the University of New England (Department of Adult Education), the Public Library of N.S.W. (Adult Education Section) and the Arts Council of Australia (N.S.W. Division).

(b) *University of Sydney.*—The Extension Board of the University of Sydney provides lectures and short courses in city and country.

In 1914, the Department of Tutorial Classes was established to provide classes and study groups along the lines of similar work in England. Its activities include the provision of tutorial classes in a wide variety of subjects, discussion groups and “kits” to serve the needs of country districts and people who cannot be catered for by tutorial classes, and publication of the fortnightly *Current Affairs Bulletin*. This publication, begun in 1942 and produced for four years by the Australian Army Education Service, was recommenced in 1947 as a civilian and service publication by the Commonwealth Office of Education. At the beginning of 1952, the Department of Tutorial Classes took over full responsibility for the bulletin. It receives an annual grant from the Commonwealth Government for this purpose.

In 1958, there were 142 tutorial classes with a total enrolment of 4,231 and 144 discussion groups with a total enrolment of 2,224.

The department works in conjunction with the Workers' Educational Association through the Joint Committee of Tutorial Classes, appointed by the university senate.

(c) *Workers Educational Association.*—In addition to co-operating with the Department of Tutorial Classes in organizing certain classes and groups, the Association itself provides classes in a wide variety of fields. It publishes *Highway*, a bi-monthly journal of adult education and maintains a property near Sydney where short residential schools are held throughout the year.

In 1958, the Association ran 60 classes, for which there were 3,575 enrolments.

(d) *University of New England.*—When the New England University College became an autonomous university in 1954, its Department of Adult Education took over full responsibility for the activities formerly undertaken by it on behalf of the Department of Tutorial Classes of the University of Sydney. It brings university extension activities to the people of northern New South Wales and conducts classes in arts and social sciences in towns throughout this region. Short residential courses are held on topics of interest to primary producers in the area.

(e) *Public Library of New South Wales*.—The Public Library's Adult Education Section provides an adult education library service for all classes and groups conducted by the Department of Tutorial Classes of the University of Sydney, the Workers' Educational Association, and the Department of Adult Education of the University of New England.

(f) *Arts Council*.—The New South Wales Division of the Arts Council of Australia provides a mobile theatre unit and organizes touring companies in ballet, opera and drama to country towns. Musicians provide some short lecture courses in the city.

(g) *Education Department*.—The New South Wales Education Department provides evening colleges, housed in its schools and staffed by trained teachers, which provide non-vocational courses in a wide variety of crafts and dramatic and musical activities. Adults may prepare for the Intermediate and Matriculation examinations at certain of these colleges.

(iii) *Victoria*.—The Council of Adult Education is a government instrumentality established by the Adult Education Act 1946. Its aims are to stimulate adult education in Victoria and to encourage voluntary organizations and associations by giving them advice and assistance. Its activities include a variety of classes (91 were available in 1957–58) on topics ranging from social studies, psychology, language and literature, to crafts, music, drama, etc., and usually lasting from 10 to 20 weeks. An annual 10-day summer school is another important activity. The Council publishes a monthly bulletin, *C.A.E. Newsletter* and a quarterly journal, *Adult Education*. Its group service assists and provides programme material for the discussion groups formed by organizations and individuals throughout the State. In 1957–58, there were 4,780 enrolments for classes and 2,556 individual enrolments in 219 discussion groups.

A recent development of importance is the extension of the council's activities, including classes and discussion groups, to the prisons, as part of a general plan for penal reform in Victoria.

Through its Community Arts Service, the Council organizes tours by musicians and by theatrical and other companies in country towns which otherwise would have no opportunity of seeing such performances. It provides an advisory service to musical societies and co-operates with the National Gallery of Victoria in the organization of travelling art exhibitions.

The council's income is derived mainly from a government grant, but also from student fees and Community Arts Service performances.

(iv) *Queensland*.—The Queensland Board of Adult Education was constituted in 1944 and is responsible under the Minister for Education for the provision of adult education facilities throughout the State. Under the executive officer of the Board, the Supervisor, are six district officers, one based in Brisbane and five in large country towns, who are responsible for organizing activities in country areas.

The cost of the programme is borne by the State Government and admission to all courses is free. Activities include lectures, group meetings on a variety of topics, generally short-term but some of which extend over a full year, and film screenings. Library and film services are provided.

In 1958, enrolments for lectures totalled 2,821. Some form of adult education activity was available in almost 200 centres.

(v) *South Australia*.—Since 1917, the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided year by year in the metropolitan area a series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, in co-operation with the Workers' Educational Association of South Australia.

In 1957, a Department of Adult Education was established and a full-time Director of Adult Education appointed. A wide range of University extension courses and educational conferences, summer schools and seminars, including a number dealing with subjects at post-graduate level, are organized directly by the University.

The Workers' Educational Association of South Australia, in addition, carries on an independent educational programme of classes, schools, and exhibitions or film festivals.

The State Education Department also arranges an extensive programme of educational activities.

(vi) *Western Australia*.—Adult education in Western Australia is organized by the Adult Education Board, established in 1928 under the terms of the statutes of the University of Western Australia. The board has a considerable degree of autonomy. Its executive officer is the Director of Adult Education.

The Board conducts in the metropolitan areas classes, refresher courses and short schools, conferences, seminars and public lectures, and maintains a library. Thirty-two classes were held in 1958 with a total enrolment of 1,511. The Board's country work is mainly operated through a Box Library Scheme for discussion groups, of which there were 71 in 1958. Lecture tours and week-end schools are held and local adult education is encouraged through semi-autonomous local committees. Metropolitan and country work is drawn together in an annual summer school.

The Board also operates a Community Arts Service in city and country and arranges screenings of foreign films. Regional Drama Festivals and Music Festivals are arranged culminating in the annual Festival of Perth, inaugurated and administered by the Board.

(vii) *Tasmania*.—Some form of adult education has existed since the formation in 1913 of a Workers' Educational Association, which worked in conjunction with the University of Tasmania for a number of years, receiving a grant through the university, which had a Director of Tutorial Classes. Later the grant was paid direct to the Association by the Government and the university's tutorial department ceased to exist. In 1948, the Adult Education Act was passed providing for the formation of an Adult Education Board whose functions are to plan and develop adult education in Tasmania and to assist other bodies actively engaged in adult education.

The executive officer of the board, located at Hobart, is the Director of Adult Education. Activities are organized on a regional basis by organizers based in Hobart, Launceston and three large country centres.

The board organizes classes of ten weeks' duration on a wide range of subjects. In 1958, 390 courses were held with a total enrolment of 4,750. It sponsors special lectures, film screenings and art exhibitions, recitals of music and dramatic performances, in both city and country areas. Its income is derived from a State Government grant and from students' fees.

3. *The New Education Fellowship*.—The New Education Fellowship is a world organization of parents, educators, and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published quarterly.

4. *Australian College of Education*.—An Australian College of Education was formed in 1959. Its aim is to bring together leading members of every field of education for their mutual benefit and the furtherance of education in the Commonwealth.

5. *Migrant Education*.—The Commonwealth Government's post-war immigration policy has brought to Australia some thousands of immigrants with little or no knowledge of English. To assist their assimilation into the Australian community, a system of migrant education has been developed to teach them English and to give them information about Australia.

Before arriving in Australia, migrants who do not speak English are given some instruction in English by shipboard education officers.

In Australia, free evening classes are arranged by State Education Departments wherever a group of nine or more migrants in country areas, or twelve or more migrants in city areas, wish to learn English. Should migrants find it impossible to attend classes, they may apply, through State Education Departments, for a free correspondence course in English. In addition, English lessons are broadcast regularly by the Australian Broadcasting Commission. The Commonwealth Office of Education provides technical advice on all aspects of migrant education and is responsible for the preparation of teaching materials.

In December, 1959, 14,259 migrants were enrolled in evening classes and 9,626 were taking correspondence lessons. At the same time, 17,026 were receiving the monthly booklet accompanying the radio lessons.

§ 10. The Commonwealth Literary Fund.

In 1908, the Commonwealth Government, under Alfred Deakin, first established the Commonwealth Literary Fund. The Fund was entirely a compassionate one devoted to literary pensions for aged or infirm authors, for the families of literary men who died in poverty and for writers who were unable for financial reasons to continue their activities.

In 1939, in an endeavour to encourage the development of Australian literature and to foster appreciation of it, the Commonwealth Government greatly enlarged the scope of the Fund. The Fund now awards a limited number of Fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature and awards pensions to writers who have achieved a nation-wide reputation for their work in the field of creative literature.

The Fellowships are awarded each year to writers who have proved their capacity to do creative work in the field of literature but who are prevented from exercising their abilities because of financial circumstances. The Fellowship gives a writer the opportunity to devote all his time to creative writing for a period of up to one year. Since 1956, the Fellowships have had a maximum value of £1,000 per annum. The Fund does not seek out people on whom to bestow Fellowships, but considers only those who submit applications.

The Fund also assists in the publication of manuscripts which have outstanding literary merit but which would not be commercially attractive propositions. This assistance takes the form of a guarantee of assistance to the publisher. The Fund does not itself enter the field of the publisher.

Since 1940, annual grants for lectures in Australian literature have been made to universities. In 1956, the Fund decided to extend the scheme to cover lectures to the general public and schools in both city and country areas. With the co-operation of the Adult Education authorities, major state-wide tours have taken place in Tasmania, Queensland, Western Australia and South Australia. The scheme will be extended to Victoria in 1960 and to New South Wales in 1961. By 1961, annual lectures will be given in all States. In this way, the Fund hopes to spread a knowledge and appreciation of Australian literature.

The Fund also assists two literary magazines of long standing and recognized literary value.

The Fund is administered by a Committee consisting of the Prime Minister (Chairman), the Leader of the Country Party and the leader of the Opposition in the House of Representatives assisted by an Advisory Board of five persons with special literary qualifications.

§ 11. Libraries.

1. *General.*—The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries, the passing of legislation in all States to increase library services, and in the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations for which students are prepared by courses of instruction in all States. Formal library schools exist in the Commonwealth National Library, Canberra, and the Public Libraries at Sydney and Melbourne. In 1960, the first library school to be attached to an Australian University will be opened. This will be in the University of New South Wales.

2. *Commonwealth.*—(i) *Commonwealth National Library.* This library grew directly from the Library of the Commonwealth Parliament established in 1901. While providing, as a primary responsibility, for the general reading and reference needs of Members of Parliament, it has developed into a central source of information for the government and its departments and other agencies. The close association of the National Library with the central government follows the pattern of the Library of Congress at Washington, U.S.A. Like the latter, it has also inherited the basic elements of the national library concept of the older countries of Europe: that a national library is the proper place to collect the national literature systematically and to make it known and available for use, and that it is a place to which scholars may turn for what is most significant in the literature of other countries.

Through its Legislative Reference Branch, the National Library aims to provide for the Parliament and the government an up-to-date reservoir of fact and opinion on public issues both domestic and foreign. In addition to assembling material, the staff compiles bibliographies and reference guides to the literature on special subjects and, in 1959, handled 1,400 inquiries involving special search. A further service to the government flows from the activities of the Archives Division, a central element in the government machinery for the management and preservation of its records. Archival repositories for Commonwealth records are maintained in Canberra, Sydney, Melbourne, Brisbane, Adelaide and Perth.

As well as the governmental record of national life and development, the National Library systematically collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving-picture films and sound recordings. It is assisted by the Copyright Act 1912-1950, which requires one copy of all material printed in Australia to be deposited in the Library, and has been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection of Public Health in Australia in 1936, the Mathews ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts and printed material in 1959, and the Ferguson sociological collection now being transferred to the library. A special feature of the Library's Australian work is the copying on microfilm, in association with the Public Library of New South Wales, of all important unique material overseas relating to Australia, including about two million pages in the Public Record Office in London.

The Library fulfils its obligations to make Australian publications widely known, both at home and abroad, through a series of select lists which include *Australian Public Affairs Information Service* (monthly with an annual cumulation), *Australian Books* (annual) and full bibliographies in the monthly *Australian Government Publications* and *Books Published in Australia*, cumulated as the *Annual Catalogue of Australian Publications*. Collections of Australian books are maintained by the library at all posts at which Australia is officially represented abroad. In London and New York, the National Library maintains and staffs Australian Reference Libraries.

In 1956, the Australian Bibliographical Centre was established within the National Library to serve as the secretariat of the Australian Advisory Council on Bibliographical Services. The Council, made up of representatives of the National Library, State libraries and library boards, the Commonwealth Scientific and Industrial Organization, the universities, and the Library Association of Australia, plans the further development and co-ordination of bibliographical services and co-operates with UNESCO and the International Advisory Committee on Bibliography. The centre organizes bibliographical projects recommended by the Council, and operates as a centre for bibliographical information in Australia and overseas. It has published a *Union List of Newspapers in Australian Libraries, Part 1: Newspapers Published Outside Australia*, 1959, and in 1960 began publication of the *National Union Catalogue of Current Monograph Accessions*.

The Library acts as a central library of documentary and educational films, its film collection containing over 4,400 titles, together with Australian historical films and a great number of film strips. In 1959, it published *Australian Films: a Catalogue of Scientific, Educational and Cultural Films, 1948-1958*. Special efforts are being made to discover and preserve samples of early Australian film-making.

Local library services are provided by the Library for the residents of the Australian Capital Territory, the Northern Territory, the Territory of Papua and New Guinea, and Norfolk Island.

The National Library's collections contain approximately 550,000 volumes, together with very extensive holdings of pamphlets, pictures, prints, maps, manuscripts and microfilm and about 6 million feet of motion picture films. Its permanent and temporary holdings of archives were, in 1959, approximately 132,000 cubic feet. Special features of the Library's book collections are its strong holdings of Australiana, materials relating to the Pacific area and to East and South-east Asia, the publications of foreign governments and of international organizations, works in the social sciences and in particular in political theory and economics.

(ii) *Patent Office Library*. The Library of the Commonwealth Patent Office, Canberra, contains approximately 8,500 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are more than 6,000,000.

(iii) *Commonwealth Scientific and Industrial Research Organization*. The library holdings of the Organization cover the pure and applied sciences. In addition to the Head Office Library in East Melbourne, each of 40 Divisions and Sections has a specialized collection covering such subjects as food preservation, forest products, chemistry, physics, animal health and fisheries. The collections are particularly strong in the publications of overseas scientific and technical research institutions, with many of which extensive exchange arrangements have been made.

The Head Office library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries, and is responsible for the following publications:—

(a) *Scientific Serials in Australian Libraries.*

(b) *Australian Science Index.*—Index of articles published in Australian scientific and technical periodicals.

(c) *C.S.I.R.O. Abstracts* which includes abstracts of papers published by C.S.I.R.O. officers, C.S.I.R.O. translations, translations available from other Australian organizations and additions to the British Commonwealth Index of Scientific Translations.

The larger libraries in the Organization have photocopying facilities which, while normally for internal use, will provide a service for the public when a publication is not held elsewhere in Australia.

(iv) *The Australian War Memorial Library.* In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in the 1914–18 and 1939–45 Wars, together with collections covering the war in Korea, 1950–53, and earlier wars in which Australian troops participated—Sudan, 1885, South Africa, 1899–1902 and the Boxer Rebellion in China, 1900–01. Books, periodicals and other records covering contemporary trends and events in the fields of military history and military science are constantly being added.

The printed records section contains approximately 65,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders, personalities and events, war posters and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody for preservation.

Written records comprise correspondence files of headquarters and units of both world wars, and the original war diaries compiled from day to day by each unit during its service.

The collection of official war photographs covering the 1914–18, 1939–45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war.

Facilities for public research are not yet fully developed, but all requests for information are met where practicable.

(v) *Other Commonwealth Government Libraries.* Most Commonwealth authorities have specialized collections in their own fields, and in addition draw largely on the National Library.

3. *States.* (Other than University Libraries, see para. 4).—(i) *State Public Libraries.* In each of the capital cities, there is a well-equipped public library, the libraries in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the public library of each capital city at 30th June, 1958.

STATE PUBLIC LIBRARIES, 30th JUNE, 1958.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra(a)	550,000	..	(b)	550,000
Sydney	(c) 555,785	..	(d) 152,179	707,964
Melbourne	650,825	110,855	45,051	806,731
Brisbane	183,699	..	..	183,699
Adelaide	184,195	(e) 58,625	63,159	305,979
Perth	319,000	..	..	319,000
Hobart	60,842	(f) 141,492	105,932	308,266
Darwin(g) .. .. .	..	31,284	..	31,284

(a) Commonwealth National Library, including Parliamentary Section. (b) Books are lent to libraries or students throughout Australia wherever necessary for research work. (c) Includes 162,014 volumes in the Mitchell Library and 11,940 volumes in the Dixon Library. (d) Includes 1,943 volumes in the Model School Library. (e) Includes 16,178 volumes in the Children's Branch and 4,159 volumes in the Youth Lending Branch. (f) Includes 111,542 volumes in the Children's Branch. (g) Northern Territory Library Service. Includes the Country Lending Branch and the Children's Branch.

(ii) *New South Wales.* The Free Library movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act 1939, which was fully proclaimed as from 1st January, 1944. Of the 161 councils which have adopted the Library Act, 140 have put their adoption into effect. During 1958-59, they spent on their libraries £1,016,789, including £359,248 received in subsidy. There are 164 libraries of which 42 are in the metropolitan area and 122 in the country. There are also 15 bookmobiles, of which two are in Sydney six in the suburbs of Sydney and seven in country municipalities and shires. These libraries contain 1,832,456 volumes.

New South Wales departmental libraries are staffed by officers seconded from the State Library, which also provides a central cataloguing service for certain municipal and shire libraries constituted under the 1939 Act. The State Library assists the library of the University Tutorial Classes.

The Country Circulation Department forwards books on loan to State schools, to municipal and shire libraries and to individual students. During 1958-59, 99,493 books were lent to small State schools, and 23,327 to country libraries, while 39,191 reference works were lent to individual country students and to libraries to satisfy special requests.

The State Library includes a general reference department of 391,546 volumes together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixson Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Mitchell Library, of more than 60,000 volumes and pamphlets and 300 paintings, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. There are now 165,000 volumes in the library, in addition to valuable manuscripts, maps and other material. In 1929, Sir William Dixson gave a collection of historical pictures then valued at £25,000. These were subsequently added to and, at his death in 1952, Sir William bequeathed the whole of his collection of books, manuscripts, pictures and other material together with an endowment of more than £113,000, mainly for the printing or reprinting of historical documents relating to Australia and the Pacific.

The maintenance and control of the ordinary lending branch of the Public Library were transferred in 1908 to the Sydney Municipal Council.

The State Library also takes care of the State archives.

Other important libraries in New South Wales are the Sydney Public Library, 186,713 volumes, Australian Museum, 32,500; Teachers' Colleges, 180,541; Technical Education Branch, 77,440; Railways Institute, 157,770; Government Transport Institute, 42,720; Cooper Library of the New South Wales Public School Teachers' Federation, 22,900; Workers' Educational Association, 12,200; and the Library at the National Hebarium, 10,350 volumes. At 30th June, 1959, the Parliamentary Library contained 130,250 volumes.

(iii) *Victoria.* Until the establishment of the Free Library Service Board in 1947, the only public library facilities available in Victoria (apart from those of the State Public Library and one or two Metropolitan Municipal Libraries) were those offered by about 200 Mechanics' Institute Libraries situated in country areas all over the State. The Board's policy has been to replace these services with modern public libraries controlled by local Municipal Councils and subsidized by the Board. Since the Board's inception, 89 municipalities, comprising 1,662,083 of the State's population, have established libraries. Of these, 21 are in the city, serving 1,099,690 people, and 68 in the country, serving 562,393 people. More than £240,000 was paid to the Councils in library subsidy for the year 1958-59 and over £480,000 was expended in Municipal Library Service for the same year. There are 1,250,000 books available to the communities in which libraries are established and combined circulation figures were over 6,100,000 as at 30th September, 1958.

A feature of the services provided in the country is the number of co-operative or regional library groups now being developed. These services, of which there are fourteen, comprising a total of 43 Councils, consist of groups of Councils which pool their financial resources, book-stocks and trained staff, in order to provide more comprehensive, efficient library facilities.

Approximately 140 Mechanics' Institute Libraries are still in existence in country areas. In 1958, 52 of them shared a grant of £2,000.

(iv) *Queensland.* The Library Board of Queensland was established in 1945 under the provisions of the Libraries Act of 1943. Its duty is to attain the fullest co-operation and improvement of the library facilities of the State, with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally. The Board consists of six members with the State Librarian as *ex officio* member and secretary.

A general function of the Board is to ensure that the fullest co-operation exists with the Department of Education, the University of Queensland, local bodies, and other bodies having for their object the encouragement of education, literature and the arts and sciences. A specific function of the board is the control and management of the Public Library of Queensland. Its policy is to build up the main collection of the Library, being as it is the State's reference centre.

The Country Extension Service, which is administered as a department of the Public Library, lends books of non-fiction free to adults and children residing outside the metropolitan area and to municipal libraries in areas of low population.

The Oxley Memorial Library, established in 1923, has been administered as a department of the Public Library since 1946 and the collection has been kept separate. Its object is to collect books, manuscripts, pamphlets and other graphic material relating to the history and literature of Australia and of Queensland in particular, and to provide facilities for research students in Queensland literature and history.

In 1958, the section of the Libraries Act dealing with the preservation of public records was proclaimed, and in 1959 an Archives Section of the Public Library was instituted and an archivist was appointed.

Since 1948, a course in librarianship has been held annually at the Public Library for the purpose of preparing trainees for the Preliminary Examination of the Library Association of Australia. In 1959, a course covering the compulsory subjects of the Association's Registration Examination was inaugurated at the Central Technical College, Brisbane.

The holdings of the Public Library of Queensland and its extension services in 1958-59 were:—Main Reference Collection, 116,003 volumes and 5,563 maps and pamphlets; Country Extension Service, 61,049 volumes; Oxley Memorial Library, 19,643 volumes and 8,180 maps, pamphlets and miscellaneous items. Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. The Board encourages local authorities to use these powers. In 1958-59, 61 local authorities were conducting 79 library services and 11 others indicated that they would do so in the near future. The Brisbane City Council has established 11 of these libraries. There were 52 libraries in Queensland free to adults.

To help overcome the problems of large area and sparse population, various local authorities provide library services on a regional basis. By 30th June, 1959, four regional library services had been established:—the South Western (one town and six shires), the Central Western (seven shires), the North Western (six shires), and the Central Highlands (five shires), with head-quarters at Charleville, Barcaldine, Mt. Isa and Emerald respectively. Other regional services are being planned.

During 1958-59, the Board received a grant of £125,500 from consolidated revenue to finance the activities of the Public Library and to pay subsidies to local bodies of fifty per cent. on the purchase of books and the acquisition or improvement of library buildings and equipment. Subsidies were paid to four regional library service boards, 61 local authorities, 42 schools of arts and nine other bodies.

The library of the Parliament of Queensland was established in 1860. At 30th June, 1959, the library held 86,464 books and pamphlets, consisting of official publications and books devoted largely to history, the social sciences, biography and literature.

The Libraries Act Amendment Act, 1949, provides for the Public Library and the Parliamentary Library each to receive a copy of all books, pamphlets, maps and other printed material published in Queensland.

(v) *South Australia.* In the reference department of the Public Library of South Australia, there are about 190,000 volumes, most of which may be borrowed. Over 3,000 periodicals are filed, and the collection of newspapers includes every newspaper printed in South Australia. There are 38,000 volumes in the lending department available to persons living in the metropolitan area, and the Country Lending Service has 78,000 volumes, of which more than half are suitable for children.

The Research Service specializes in scientific and technical inquiries, and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia held approximately 65,000 volumes at 31st December, 1958.

The Institute's Association in 1958 comprised 223 suburban and country libraries with 752,970 volumes.

(vi) *Western Australia.* In 1955, the Library Board of Western Australia was made responsible for all public library services, throughout the State, to which the State Government contributes funds.

The Board has the following major functions:—

- (a) To encourage local authorities throughout the State to establish public libraries and to provide as a State subsidy all books and bibliographical services necessary for such libraries when established;
- (b) To administer the State Library;
- (c) To advise the Government on all matters relating to libraries;
- (d) To provide for the training of librarians.

Local public libraries are subsidized on a £1 for £1 basis, the local authority providing accommodation and staffing and the Board all books and related services. The Board provides at least one volume per head of the population. All non-fiction books may be made available at any public library throughout the State on request to the Board. All cataloguing is done by the Board. The first library under this scheme was opened in August, 1954. By 30th June, 1959, 35 libraries had been established.

Prior to the establishment of the Library Board, the government appointed a Country Free Lending Libraries Committee in 1944 to make small grants to local authorities for library purposes. With the more comprehensive service now available through the Library Board, the activities of this Committee are becoming less important and it will cease to function altogether, probably in 1961.

The State Library, established in 1887, is the reference division of the Library Service of Western Australia. In addition to providing the normal facilities of a reference library for the metropolitan area, it extends its service throughout the State through local public libraries. It is divided into four subject departments as follows:

- J. S. Battye Library of West Australian History.
- Library of Business, Science and Technology.
- Library of Social Sciences, Philosophy and Religion.
- Library of Literature and the Arts.

The State Bibliographical Centre is housed at the State Library and there is also a Commercial Information Centre. The State archives are maintained by the State Library and managed by the staff of the Battye Library. The State Library is fully equipped with microfilm and photocopy apparatus.

The bookstock of the Board at 30th June, 1959, was approximately:

- Lending library services (including books in public libraries): 147,000 volumes.
- State Library: 182,000 bound volumes.

The University of Western Australia, through its Adult Education Board, manages the Adult Education Library of some 14,000 volumes of general reading and fiction. Books are sent to country readers by post.

There are some 100 special libraries in government departments and industrial firms.

Union catalogues of periodicals and books received in the libraries of all types in the State are maintained by the Library Board of Western Australia in the Bibliographical Centre of the State Library.

(vii) *Tasmania.* The Tasmanian Library Board, constituted in 1944, is responsible for administering the State library head-quarters in Hobart, for the extension of library services throughout the State and for the control of State aid for libraries. State aid to municipalities is provided in the form of books of a value equal to the amount of library rates collected. The total cost of library services to the State during 1957–58 amounted to £99,078.

The Tasmanian Library Board provides lending and reference services for the people of Hobart and operates a reference service for people throughout the State. In addition it conducts screenings of documentary films, recitals of recorded music, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during session. It catalogues all new books added to the library and supplies recreational reading.

4. University Libraries.—The libraries of the Australian universities provide material not only for the education of graduates and undergraduates, but also for research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them

is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professional staff. In size, the library of the University of Sydney is the fourth library in Australia, and the libraries of the Universities of Melbourne and Adelaide are respectively eighth and ninth. The following table shows the sizes, accessions during the year, and expenditure of the Australian university libraries; borrowing statistics are not shown, as they differ too widely to be comparable without considerable explanation.

UNIVERSITY LIBRARIES, 1958.

University or College.	Volumes.	Accessions during year.	Expenditure.
			£
Australian National University	138,664	8,883	52,584
Sydney(a)	420,532	18,188	81,243
New South Wales	93,411	10,966	72,253
New England(a)	63,982	13,015	37,953
Melbourne(a)	257,090	12,685	96,114
Queensland	178,081	17,110	66,313
Adelaide	233,090	11,494	71,919
Western Australia	157,888	11,061	57,181
Tasmania(a)	103,900	6,486	34,352
Canberra University College(a)	52,060	11,060	27,539
Total	1,698,698	120,948	597,451

(a) Includes pamphlets.

The library of the Australian National University was founded in 1948. At the end of 1959, stock comprised about 150 000 volumes, including a collection in oriental languages. The library is designed to serve the staff and students of a post-graduate institution but its resources are freely available to all serious readers. It specializes in the fields of the physical and medical sciences, excluding clinical works. In the social sciences, it aims to provide a good working collection while giving consideration to the holdings of the Commonwealth National Library. It possesses significant collections in anthropology, linguistics, mathematics and mathematical statistics.

The library of the University of Sydney consists of the central collection which is known as the Fisher Library, the Law Library, the Medical Branch Library, the Burkitt Library for preclinical medicine, and some fifty departmental libraries. Although the University library contains more than 400,000 volumes, other libraries in the University grounds account for half as much again. In 1959, a storage library for less used material was established in Darlington.

The first books were acquired in 1851 and shortly afterwards the library of Sydney College was added. The notable collection of Nicholas D. Stenhouse was acquired in 1878 as the gift of Thomas Walker. In 1885, Thomas Fisher bequeathed the sum of £30,000, the income from which is used as a book Fund. Perhaps the finest collection in extent and importance which has been given to the University is that of Sir Charles Nicholson. There have been numerous other benefactions, among which may be mentioned the library of Sir Francis Anderson, the W. H. Deane collection of books and manuscripts and the Dalley-Scarlett music library.

The University of New South Wales used as its first library that of the Sydney Technical College. This became a joint central library with branches wherever the University had courses, until in 1959 the library at Kensington became the University's central library with a University librarian. In November, 1959, the University had 108,900 volumes (32,600 in the Sydney Technical College, 30,600 at Kensington, 36,200 in the Newcastle University College, and 9,500 at other centres).

The University of New England library was founded in 1938, and bears the name of its first benefactor, Sir William Dixon. At the end of 1959, it contained 74,000 volumes on the open shelves and subscribed to 1,450 current periodicals. The library is at present housed in temporary quarters with seating for 100 readers. The bindery and

Compactus shelving for newspapers and local records are housed in the two basement areas. Microfilm and microcard readers are available. The permanent library building is at present being erected and will hold 278,000 volumes and 190 readers, as well as the bindery and photographic departments. This is expected to be ready for occupation at the end of 1960.

Early in 1854, the University of Melbourne made its first allocation for books, but the library was housed in temporary quarters until 1959. The W. L. Baillieu Trust made available the first instalments of a £100,000 gift for building purposes, which have been followed by subsequent gifts and substantial grants from the Commonwealth and State governments, and a new building costing £750,000 was occupied at the beginning of 1959, the first in the University to be designed for library purposes. It provides space for 1,000 readers and 300,000 books. During the academic year, admissions of readers to the building average nearly 8,000 a day. Most of the books are accessible on open shelves, and though the library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. The resources of the library are also extensively used on inter-library loan by industries and other organizations throughout Australia. The University library, including 13 branch libraries in various departments, is administered from the centrally situated Baillieu Library and, at the end of 1959, it contained 269,824 books and pamphlets. The large medical branch library is specially rich in periodicals.

The library of the University of Queensland was founded in 1911. The main library is in its own building in the University at St. Lucia, and there are a considerable number of departmental libraries. All books are in open access and most are available for borrowing. At 1st October, 1959, the library contained more than 180,000 volumes. The main library includes a special collection of material relating to the history, development and culture of the countries surrounding the Pacific Ocean.

The Adelaide University library bears the title of its original benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the university over £50,000 for the library. Although all readers have access to all parts of the library, the book collection is in two divisions, a collection of some 25,000 of the most frequently used books being kept in the main reading room and the remainder, consisting of older and more specialized books, being shelved on the four levels of the extensions. Bound periodicals are shelved in steel stacks under the main reading room. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are branch libraries for medicine, law and music. The British Medical Association (S.A. Branch) and the Australian Physiotherapy Association (S.A. Branch) make annual contributions towards the maintenance of the medical library in return for borrowing privileges for their members. The Waite Agricultural Research Institute has a separately administered library of publications in agriculture.

In the University of Western Australia, the first permanent library staff was not appointed until 1927. Provision for a permanent library was not possible when the university moved to its present site, and space and facilities have consequently been inadequate. The whole collection, consisting of about 170,000 volumes, is accessible on open shelves. There are a Law Library, a Medical Library, a number of departmental libraries, and a bindery. The library possesses a good range of periodicals, especially legal and scientific and is building up a useful collection of Australian literature.

Although the library of the University of Tasmania was founded in 1893, a full-time librarian was appointed for the first time at the end of 1945. Since 1954, a Hobart Union List of Serials has been housed in and kept up to date by the university library, thus providing a major reference tool for all bibliographic inquiries in the State. At the end of 1959, the Library contained approximately 117,000 volumes and received 2,150 periodicals currently.

The Canberra University College library was established in 1938. In 1959, it contained 60,000 volumes, which are on open shelves.

5. Children's Libraries and School Libraries.—(i) *New South Wales.* Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents' and citizens' associations and partly by departmental subsidy. Secondary and central schools have trained teacher librarians.

(ii) *Victoria.* Under the auspices of the Free Library Service Board, 89 municipal children's libraries have been, or are being, established as part of the library services provided by the councils concerned. All these libraries provide comprehensive modern

children's book collections which are constantly being refreshed. An annual grant of £5,000, which is additional to the ordinary annual municipal library grant, is provided to assist these libraries. In addition, seven independently controlled children's libraries shared in this grant in 1958.

The Education Department is making provision for the building of library rooms in new schools. Where accommodation is available in existing schools, library furniture is provided free of cost to the schools and the government subsidises the purchase of books. In December, 1958, 315 schools had central libraries.

A scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. Three hundred and fifty schools benefited from this scheme in 1958.

The Department has a Library Service Officer with a small staff to advise and assist schools in the establishment and organization of libraries. A one-year course for the training of teacher-librarians was established at Melbourne Teachers' College in 1955. Approximately 20 teachers are trained each year.

(iii) *Queensland.* The Library Board of Queensland stresses to local bodies the importance of providing adequate library services for children. There are in Queensland 10 libraries free to children, of which 9 are conducted by the Brisbane City Council. The children's libraries at Rockhampton, Toowoomba, and Townsville are particularly active. Country children who are not catered for locally may borrow from the Country Extension Service which possesses a separate children's collection. The purchase of books in State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Education on a £1 for £1 basis. Trainees at the Teachers Training College are instructed in school library organization and management.

(iv) *South Australia.* A Children's Library of 19,000 volumes is used by school classes and individual children living in the metropolitan area. Except for works of reference, all books are available for loan. In August, 1957, a Youth Lending Service was opened for young people from 13 to 18 years of age. It has a stock of 6,400 volumes.

(v) *Western Australia.* The State Education Department makes library subsidies and grants to government schools.

All high schools are provided with a library room and furniture, and trained teacher-librarians are appointed to them. Building plans do not provide for primary school libraries, but a number of the schools have set up central libraries when rooms have become available.

One-teacher and two-teacher schools are served by the Charles Hadley travelling library and the Small Schools Fixed Library services. Under the Fixed Library Scheme, permanent libraries of reference books and encyclopaedias were placed in each such school. Books to the value of £15 were added to each of these libraries annually from 1948 to 1954. Since then, the grant for these books is made at three year intervals. The Hadley library provides recreational reading and operates 340 boxes which are exchanged every three months. The government grants £500 per annum for this service, and the participating schools contribute the commission received from the Commonwealth Savings Bank—about £170.

Children in isolated areas who are unable to attend school are catered for by books sent out by the State Correspondence School's Library. The children are kept in touch with the library by means of radio talks and leaflets issued periodically.

(vi) *Tasmania.* The Lady Clark Memorial Children's Libraries, at the State Library, Hobart, aim to serve all children in Tasmania with books. At 30th June, 1958, 198 children's libraries and depots had been established.

Practically all State secondary schools in Tasmania have libraries, with full-time librarians in four of them. A Schools' Library Service gives a book service to schools and assists schools wishing to set up their own libraries. In 1958, the number of schools receiving service was 107 and the number of books issued was 10,871.

6. *Special Libraries.*—Before the 1939–45 War, the number of special libraries, apart from those maintained by government departments, was small, but during recent years, many manufacturing, commercial, research and other firms, as well as statutory bodies have found it necessary to establish special libraries to serve their staff. These libraries, which are most numerous in Sydney and Melbourne, are being administered increasingly by trained librarians.

7. **Microfilms.**—The following libraries supply microfilm or photostat copies of material usually at a small charge (the letter "P" signifies photostat supplied and "M" microfilm supplied):—*Australian Capital Territory*—Australian War Memorial (P), Commonwealth National Library (PM), C.S.I.R.O. (M), Australian National University (M), Patent Office (P); *New South Wales*—Metropolitan Water, Sewerage and Drainage Board (P), Public Library of New South Wales (M), Standards Association of Australia (P), School of Public Health and Tropical Medicine (M), Fisher Library, University of Sydney (PM); *Victoria*—Commonwealth Serum Laboratories (P), Technical Information Section, Munitions Supply Laboratories (PM), Public Library of Victoria (M), Standards Association of Australia (Melbourne Branch) (P), University of Melbourne (PM), C.S.I.R.O. (M); *Queensland*—Public Library (P); *South Australia*—Public Library of South Australia (PM), University of Adelaide (PM), Waite Agricultural Research Institute (P); *Western Australia*—State Library (PM); *Tasmania*—University of Tasmania (PM).

§ 12. Public Museums.

(i) *New South Wales.* The Australian Museum in Sydney, founded in 1836, is the oldest in Australia. In addition to possessing fine collections of Australian fauna, the museum contains valuable anthropological and mineral collections. The number of visitors to the institution during 1957–58 was 300,700 and the average attendance on week-days 742 and on Sundays, 1,317. The expenditure for 1957–58 amounted to £80,894. A valuable library containing 32,000 volumes is attached to the museum. Courses of evening popular lectures are delivered and lecturers also visit distant suburbs and country districts, and afternoon lectures for school children are provided; 13,810 children attended during 1957–58. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids to country schools. The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History and the Museum of Normal and Morbid Anatomy attached to the University of Sydney, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public.

There is a Museum of Applied Arts and Sciences in Sydney with branches in three country centres. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus and the gums, kinos, tanning materials, and other economic products of native vegetation generally. Expenditure during the year 1957–58 was £51,451.

(ii) *Victoria.* The National Museum at Melbourne, devoted to natural history, geology and ethnology is in the eastern section of the Public Library Building. The Museum of Applied Science, also housed under the same roof, contained at 30th June, 1958, 24,300 exhibits which covered applied and economic aspects of all branches of science. There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the School of Mines in the chief mining districts.

(iii) *Queensland.* The Queensland Museum, founded in 1855, is the State museum of natural science. It is a Government sub-department and is maintained by the State. The collections comprise extensive exhibited and reference series, mainly in the fields of zoology, geology, and ethnology, and some mechanical and historical material is held with a view to future museum development. Lessons supported by film displays are arranged for the public and an annual refresher course in natural science is conducted for teachers. The museum is now the recognized State depository for valuable material in natural science, and the collections in general are constantly being increased. In addition, the Museum contains the outstanding library of the State in the fields of zoology, geology and anthropology.

(iv) *South Australia.* The South Australian Museum has considerable collections of most branches of natural history. In 1958–59, there were at least 200,000 visitors and expenditure was £50,224.

(v) *Western Australia.* The Western Australian Museum was established in 1895. It is under the statutory management of a board of five members, appointed by the State Government, but operates under its own director and staff. It is primarily a museum of natural history, with principal research interests in the fauna of Western Australia and the ethnology of the Western Australian aboriginal and has extensive geological collections and also historical and technological exhibits.

The Education Department of Western Australia has two teachers attached to the Museum. One gives instruction to visiting classes from schools in the metropolitan area and 2,735 children attended these classes during 1959. The other acts in an advisory capacity to teachers in country schools.

(vi) *Tasmania.* There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral and miscellaneous products. The museum received aid from the Government during 1957–58 to the extent of £26,100.

§ 13. Public Art Galleries.

(i) *New South Wales.* The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. At the end of 1958, its contents comprised 1,456 oil paintings, 925 water colours, 2,423 prints and drawings, 291 sculptures and casts, and 1,330 ceramics, works in metal and miscellaneous. Since 1895, loan collections of pictures have been exhibited regularly in important country towns. The expenditure for 1957–58 was £42,010.

(ii) *Victoria.* The National Gallery at Melbourne at 30th June, 1958, contained 1,208 oil paintings, 7,678 objects of statuary, bronzes, ceramics, etc., and 8,144 water colour drawings, engravings and photographs. The Gallery is situated in the same building as the Museum and Public Library. Expenditure allocated to the National Gallery in 1957–58 was £67,529, including £3,413 for purchases of works of art. Several bequests have been made to the institution by private citizens. There are provincial art galleries at Ballarat, Bendigo, Castlemaine, Geelong, Mildura, Shepparton, St. Arnaud and Warrnambool, to which, periodically, pictures are sent on loan from the National Gallery.

(iii) *Queensland.* The Queensland Art Gallery, maintained by the State Government, was established in 1895.

During 1959, the Government passed a new Queensland Art Gallery Act re-organizing the gallery, appointing a new Board of Trustees and granting a site for the building of a new Art Gallery.

Within recent years, gifts and bequests have enriched the gallery. In 1959, an anonymous gift of £126,000 was presented. The collection comprises 464 oils, 610 watercolours and drawings, 63 sculptures and 146 art objects.

(iv) *South Australia.* The National Gallery at Adelaide originated in an exhibition of pictures in the Public Library Building in 1881. Many bequests made by private citizens have materially assisted its growth. At 30th June, 1959, there were in the Gallery 1,839 paintings in oil, water colours and pastels, 131 items of statuary and large collections of drawings, prints, furniture, ceramics and coins. The expenditure during 1958–59 was £22,563.

(v) *Western Australia.* The Art Gallery of Western Australia was established in 1895. Although under the statutory management of a board of five members, appointed by the State Government, it functions under its own director and staff. At 30th June, 1959, the collection included 352 oil paintings, 176 water colours, 10 pastels, 789 drawings, 515 prints, 9 miniatures and 20 pieces of sculpture. International and interstate exhibitions are frequently held and travelling exhibitions are sent to country centres.

(vi) *Tasmania.* In Tasmania, the Art Gallery at Hobart was opened in 1887. In June, 1958, it contained 185 oil paintings, 181 water colours, 127 black and white, three statuary and 146 etchings, engravings, etc. Expenditure in 1957–58 was £22,287.

The Art Gallery at Launceston was opened in 1891. Only a small proportion of the contents belongs to the gallery, the majority of the pictures being obtained on loan. In June, 1958, there were on view 224 oil paintings, 122 water colours, 72 black and white, and 117 miscellaneous exhibits. Expenditure in 1957–58 was £11,743.

§ 14. Scientific Societies.

1. **Royal Societies.**—The following table contains the latest available statistical information regarding the Royal Society in each State, the headquarters of which are in the capital cities.

ROYAL SOCIETIES.

Particulars.	Sydney.	Mel- bourne.	Bris- bane.	Ade- laide.	Perth.	Hobart.	Can- berra.
Year ended—	Feb. 1959.	Dec. 1959.	Dec. 1959.	Sept. 1959.	Dec. 1958.	Dec. 1959.	Dec. 1958.
Year of foundation	1866	1854	1884	1880	1914	1843	1930
Number of members	319	351	259	171	195	518	180
Volumes of transactions issued	92	(a) 950	70	82	41	93	..
Number of books in library	40,500	25,000	54,305	21,500	5,600	32,200	..
Societies on exchange list	381	320	336	246	214	300	..
Income	£ 3,150	4,437	818	2,831	(b) 776	1,647	107
Expenditure	£ 3,056	4,385	1,029	3,175	(b) 577	1,600	89

(a) Proceedings.

(b) 30th June, 1958.

2. **Australian Academy of Science.**—The Australian Academy of Science was founded in 1954 to promote scientific knowledge, to maintain standards of scientific endeavour and achievement in the natural sciences in Australia, and to represent Australian science at national and international level. These objectives it shares with the Royal Society of London and with the national academies of science of most other countries.

Prior to 1954 Australian science had been represented in international activities by the Australian National Research Council.

During the Royal Visit, Her Majesty Queen Elizabeth II was graciously pleased to present her Charter to the provisional Council of the Academy at a simple ceremony at Government House, Canberra, on 16th February, 1954, thus following the precedent of King Charles II who presented his Charter to the Royal Society of London in 1662.

Six Fellows, distinguished for their achievements in the natural sciences, are elected annually. The total Fellowship is now 85.

The affairs of the Academy are managed by an elected Council consisting of the President, the Treasurer, two Secretaries (one representing the Physical and the other the Biological Sciences) and eight other members. The Assistant Secretary (who must not be a Fellow) is the Academy's salaried administrative officer.

The headquarters of the Academy is situated in Gordon Street, Canberra City. This building, which is of unconventional design, houses the offices of the Academy and provides a conference centre of international standard for scientific and other meetings.

3. **The Australian and New Zealand Association for the Advancement of Science.**—This association was founded in 1887. Its headquarters are at Science House, Gloucester Street, Sydney, and congresses are held at intervals of approximately eighteen months in the various States and in the Dominion of New Zealand. The next congress is scheduled to take place in Brisbane in May, 1961.

4. **Other Scientific Bodies.**—A number of scientific bodies have been set up by the Commonwealth Government. These are the Commonwealth Scientific and Industrial Research Organization, the Commonwealth Observatory (which has now been incorporated in the Australian National University), the Ionospheric Prediction Service, and the Atomic Energy Commission. Particulars concerning these bodies may be found in Chapter XXX.—Miscellaneous.

The Linnean Society of New South Wales, with head-quarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by investment to approximately £100,000. The Society offers annually to graduates of the University of Sydney who are members of the Society and resident in New South Wales, research fellowships (Linnean Macleay Fellowships) in various branches of natural history. One fellowship

was awarded in 1959. The library comprises some 19,000 volumes. Eighty-four volumes of proceedings have been issued, and the Society exchanges with about 300 kindred institutions and universities throughout the world. The membership at the end of 1959 was 260.

The British Astronomical Society has a branch in Sydney, and in each of the States there is a branch of the British Medical Association.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

§ 15. State Government Expenditure on Education, Science and Art.

The expenditure by each State Government on education, science and art during the year 1957–58 is shown in the following table. Owing to the details not being available in all States, the figures exclude officers' pensions and superannuation, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical and dental inspection of school children is also excluded, as this service is more appropriately classified under public health.

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1957-58.
(£'000.)

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
New South Wales ..	41,196	9,227	..	50,423	941	49,482
Victoria ..	29,073	7,844	..	36,917	375	36,542
Queensland ..	12,617	2,154	544	15,315	511	14,804
South Australia ..	9,738	2,670	..	12,408	754	11,654
Western Australia ..	9,030	1,663	18	10,711	187	10,524
Tasmania ..	4,362	1,243	28	5,633	45	5,588
Total ..	106,016	24,801	590	131,407	2,813	128,594

CHAPTER XVI.

PUBLIC JUSTICE.

NOTE.—In interpreting statistics of public justice, it should be realized that a number of factors affect comparability from State to State and from year to year, e.g.:

- (a) Differences in the jurisdiction of courts;
- (b) Changes in the law in particular States and differences in the laws between States;
- (c) The methods of compilation of the figures (e.g. *see* footnotes to the tables dealing with convictions);
- (d) The attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences;
- (e) The strength and distribution of the police force;
- (f) The proportion of various types of crimes reported and solved.

§ 1. The Australian Legal System.

1. **General.**—Australia, being a federation, has two systems of courts—State and federal. The only federal courts are the High Court of Australia, the Federal Court of Bankruptcy and the Commonwealth Industrial Court. Otherwise, federal jurisdiction is vested in the State courts.

Thus, while the High Court has extensive original jurisdiction, most civil cases involving federal jurisdiction are heard in the State courts. Almost all criminal matters involving federal jurisdiction are tried in State courts. In the tables in this chapter which give statistics of proceedings in State courts, no distinction has been drawn between State cases proper and cases where State courts are exercising federal jurisdiction.

2. **State Courts.**—(i) *Civil jurisdiction.* Lower courts (which term includes, for the purposes of this chapter, Magistrates' Courts, Courts of Petty Sessions, and Small Debts Courts) are presided over by a stipendiary or police magistrate. In some limited instances, justices of the peace may exercise the jurisdiction of the court. The powers of the magistrates in the various States and Territories are set out in § 2 below. In most cases, unless the amount involved is very small, appeal may be made to a higher court against a magistrate's decision. In any case, the Supreme Court has a supervisory power, by means of prerogative writs, to examine whether a lower court has properly exercised its jurisdiction.

In the higher courts (which term includes, for the purposes of this chapter, District Courts, County Courts, and the Supreme Courts), actions are usually tried by a single judge, sitting with or without a jury, from whose judgment appeal lies to the bench of the Supreme Court. In certain cases, the appeal can be carried to the High Court of Australia. Appeals to the Privy Council are discussed below.

(ii) *Criminal jurisdiction.*—Criminal courts are of two kinds, namely, courts of summary jurisdiction, usually called Courts of Petty Sessions, which may deal summarily with minor offences, and higher courts, known as Courts of Sessions, Quarter Sessions or General Sessions, and the Supreme Court, which hear indictable offences. A court of summary jurisdiction consists of a stipendiary or police magistrate, or two or more justices of the peace; a higher court consists of a judge or chairman, sitting with a jury. The jury finds as to the facts of the case and the judge determines the applicable law.

In the case of other than minor offences, a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a *prima facie* case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. A magistrate or justice of the peace has power to release on bail.

There is an appeal to a higher court from the decision of a court of summary jurisdiction hearing a minor offence, and an appeal from a higher court to the full bench of the Supreme Court, or Court of Criminal Appeal. A further appeal may, with leave, be brought to the High Court of Australia.

3. **Federal Courts.**—The judicial power of the Commonwealth is vested in the High Court of Australia (the Federal Supreme Court), in the Federal courts created by Parliament (the Federal Court of Bankruptcy and the Commonwealth Industrial Court), and in the State courts invested by Parliament with Federal jurisdiction, both civil and criminal. Further particulars regarding the judicial power of the Commonwealth will be found in Chapter III. (§§ 71-73) of the Commonwealth Constitution (*see* p. 16 of this Year Book).

Particulars concerning the Federal Court of Bankruptcy and the High Court of Australia will be found in sections 4c and 5, respectively, of this chapter. Information regarding the Commonwealth Industrial Court, which was established under the Conciliation and Arbitration Act 1904-1958, will be found in Chapter XII.—Labour, Wages and Prices (p. 416).

4. **Appeal to the Privy Council.**—There is an appeal, by special leave of the Privy Council, from the High Court to the Privy Council. In certain important types of constitutional disputes, involving questions of the powers of the Commonwealth *vis-à-vis* the States, a certificate of the High Court in effect granting leave to appeal is necessary. There is also an appeal from the State Supreme Courts direct to the Privy Council.

§ 2. Lower (Magistrates') Courts.

A. POWERS OF THE MAGISTRATES.

1. **New South Wales.**—There is no general limit to the powers of the magistrates with regard to offences punishable summarily, their authority depending in each case on the statute which creates the offence and gives them jurisdiction. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to twelve months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts, and damages whether liquidated or unliquidated, the amount is limited to £50 before a court constituted by a stipendiary magistrate. Magistrates have power to entertain claims of up to £250 under the Hire Purchase Agreements Acts. The amount in actions of debt before two or more justices of the peace is limited to £30 and in actions of damage it is limited to £10, but may extend to £30 with the consent of the defendant. Outside the Metropolitan Area of Sydney and certain other prescribed districts, one justice of the peace may hear cases of debt, liquidated or unliquidated, or damage up to £5 or to £30 by consent of parties.

2. **Victoria.**—The civil jurisdiction of magistrates is restricted to what may be designated ordinary debts, damages for assault, restitution of goods, etc., where the amount in dispute does not exceed £100, and to actions arising out of torts or contracts to the extent of £250. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences, sentences of up to two years' imprisonment may be imposed. The proportion of long sentences is, however, comparatively small.

3. **Queensland.**—Generally speaking, the maximum term of imprisonment which justices can impose is six months, but in certain exceptional cases, such as offences against sections 233, 344 and 445 of the Criminal Code (betting houses, aggravated assaults, and unlawfully using animals), sentences of twelve months may be imposed.

There is provision for applying cumulative sentences, but in practice not more than one sentence is generally made cumulative on a previous sentence.

4. South Australia.—The power of special magistrates to impose fines and imprisonment is defined by the special Act creating the offence and conferring jurisdiction. In the case of minor indictable offences which are tried summarily, a maximum penalty of £100 fine or two years' imprisonment is fixed by the Justices Act 1921–1957. Magistrates also have power to hear certain civil actions in which the amount claimed is less than £1,250.

5. Western Australia.—The powers of magistrates and justices with regard to offences which are tried summarily are governed by the Act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months.

The civil jurisdiction of Local Courts is restricted in general to £500. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate.

Magistrates are coroners and justices may be appointed as acting coroners.

Magistrates have appellate jurisdiction under some statutes and in country districts act as Chairmen of the Courts of Session. They may be appointed as Commissioners of the Supreme Court. On the goldfields, the magistrate is also the warden.

6. Tasmania.—Magistrates are empowered to hear and determine in Courts of Petty Sessions all offences when an enactment expressly or by implication provides that the matter is to be determined summarily, or by or before justices, or that any offence is to be punishable upon summary conviction. In addition, stealing and analogous crimes may be heard and determined summarily on the election of the person charged, when the amount involved does not exceed £100.

No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the Contravention of Statutes Act 1889 provides that a fine of £50 may be imposed. Sentences of imprisonment which justices may impose vary with the nature of the offence, with a maximum of two years. The aggregate of terms of cumulative sentences may not exceed two years.

The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, provided he is a legal practitioner, may hear actions for the recovery of debts and damages not exceeding £250. As Commissioners are invariably police magistrates, this jurisdiction is State-wide. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed £50. Only one court, that at Currie, King Island, has the maximum jurisdiction, the others being limited to £30.

7. Northern Territory. Magistrates constituting courts of summary jurisdiction try offences punishable summarily. The punishment that may be imposed depends on the law creating the offence. Where there is no magistrate available the offence may be tried by two or more justices of the peace or, if all parties consent, by one justice. Proceedings for committal on indictable offences may be heard by either a magistrate or a justice of the peace. Certain minor indictable offences may be tried summarily by a magistrate or two justices of the peace who may impose a fine up to £100 or two years' imprisonment.

A stipendiary magistrate constituting a local court has a civil jurisdiction to hear and determine claims for not more than £1,000. A local court constituted by two justices of the peace has a civil jurisdiction to hear claims up to £50.

8. Australian Capital Territory. Magistrates have jurisdiction to try an offence which is punishable summarily and also where a person is made liable to a penalty or punishment and no other provision is made for trial. The punishment depends upon the statute which creates the offence. Certain indictable offences of a less serious nature may be tried summarily by a magistrate, who may impose a fine of £50 or imprisonment for one year. Magistrates also hear proceedings for committal on indictable offences. The stipendiary magistrate is also the coroner. In civil proceedings, magistrates try actions for amounts up to £200. Justices of the peace have no judicial functions.

B. CRIMINAL PROCEEDINGS.

1. **Cases Tried.**—The total numbers of cases tried at magistrates' courts in each State for the years 1954 to 1958 are shown in the following table:—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales (a) ..	271,105	254,487	271,172	307,824	323,097
Victoria	135,409	149,296	175,899	224,015	270,017
Queensland(b) ..	46,482	49,372	47,072	53,611	62,468
South Australia(b) ..	28,757	32,593	31,799	34,399	36,305
Western Australia ..	50,640	67,739	(c) 62,753	(c) 59,205	(c) 49,945
Tasmania	19,814	19,672	19,274	19,120	20,009
Northern Territory ..	(b) 2,077	(b) 2,105	(b) 2,779	(b) 2,615	3,103
Australian Capital Territory	1,406	1,480	1,564	1,875	2,197
Australia	555,690	576,744	612,312	702,664	767,141

(a) In addition the following numbers of minor traffic offences were settled by payment of fines to the Police Department, without court appearances: 1954—23,177; 1955—61,179; 1956—163,921; 1957—237,811; 1958—315,058. (b) Twelve months ended 30th June of year shown. (c) In addition the following numbers of fines for minor traffic offences were paid to Crown Law Departments: 1956—32,130; 1957—31,405; 1958—36,999.

2. **Convictions at Magistrates' Courts.**—Of the persons who appeared before Magistrates' Courts in 1958, the following table shows the number who were convicted in each State.

CONVICTIONS AT MAGISTRATES' COURTS, 1958.

Class of Offence.	N.S.W.	Vic.	Qld. (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the Person ..	3,701	1,568	470	313	470	284	84	118	7,008
Against Property ..	23,921	9,509	3,831	2,021	5,546	1,379	112	239	46,558
Forgery and Offences against the Currency ..	338	55	4	4	..	3	13	(c)	413
Against Good Order ..	100,590	38,887	31,050	5,680	6,594	1,670	1,736	472	186,679
Other	165,990	201,046	25,241	24,603	34,427	13,880	770	1,081	467,038
Total	294,540	251,065	60,592	32,621	47,037	17,216	2,715	1,910	707,696

(a) Year ended 30th June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Included in offences against property.

The following table shows the number of convictions in each year from 1954 to 1958:—

CONVICTIONS AT MAGISTRATES' COURTS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales (a) ..	250,019	233,777	249,131	282,489	294,540
Victoria	121,919	133,575	158,869	208,125	251,065
Queensland(b)(c) ..	42,590	46,242	45,711	52,113	60,592
South Australia(b) ..	25,482	29,264	28,221	30,658	32,621
Western Australia ..	48,005	65,118	(d) 59,883	(d) 56,297	(d) 47,037
Tasmania	17,299	17,314	17,029	17,040	17,216
Northern Territory ..	(b) 1,915	(b) 1,864	(b) 2,444	(b) 2,340	2,715
Australian Capital Territory ..	1,128	1,285	1,209	1,597	1,910
Australia	508,357	528,439	562,497	650,659	707,696

(a) See footnote (a) to table in para. 1 above. (b) Twelve months ended 30th June of year shown. (c) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence the results of all hearings are recorded separately. (d) See footnote (c) to table in para. 1 above.

3. **Convictions for Serious Crime at Magistrates' Courts.**—(i) *General.* The figures given in the preceding tables refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at Magistrates' Courts for what may be regarded as the more serious offences, i.e. offences against the person, offences against property, forgery and offences against the currency.

(ii) *Number and Rates.* The following table shows the number of convictions for serious crime at Magistrates' Courts for the years 1954 to 1958:—

CONVICTIONS FOR SERIOUS(a) CRIME AT MAGISTRATES' COURTS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	17,085	19,803	21,399	23,510	27,960
Victoria	7,471	7,318	8,504	8,926	11,132
Queensland(b)(c)	3,226	3,546	3,942	4,079	4,301
South Australia(b)	1,744	1,867	1,889	2,298	2,338
Western Australia	4,241	4,368	5,289	5,205	6,016
Tasmania	898	1,127	1,176	1,738	1,666
Northern Territory	(b) 195	(b) 177	(b) 115	(b) 247	209
Australian Capital Territory	231	138	102	295	357
Australia	35,091	38,344	42,416	46,298	53,979

(a) Offences against the person, offences against property, forgery and offences against the currency.
 (b) Twelve months ended 30th June of year shown. (c) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

The number of convictions for serious crime at Magistrates' Courts per 10,000 of population for the same series of years is shown in the following table:—

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

(PER 10,000 OF POPULATION.)

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	49.8	56.7	60.2	64.9	75.7
Victoria	30.5	29.0	32.7	33.4	40.6
Queensland(a)	24.8	26.8	29.1	29.5	30.2
South Australia(a)	22.2	23.1	22.6	26.7	25.7
Western Australia	66.3	66.3	78.1	75.2	85.3
Tasmania	28.9	35.6	36.5	52.6	49.3
Northern Territory	(a) 122.4	(a) 107.0	(a) 65.8	(a) 134.7	108.7
Australian Capital Territory ..	76.0	42.6	49.4	78.3	90.9
Australia	39.1	41.8	45.1	48.1	54.7

(a) Twelve months ended 30th June of year shown.

(iii) *Rate of Convictions 1881 to 1951.* The rate of convictions at ten-year intervals over a period of 70 years is shown below.

**RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS:
AUSTRALIA.**

Year	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1951.
Convictions per 10,000 persons. .	69.3	44.8	29.1	24.6	29.2	37.1	33.6	37.1

4. **Committals to Higher Courts.**—(i) *Number of Committals.* The following table shows the number of offences, classified according to the nature of the offence, for which persons appearing in the lower courts were committed to higher courts for each State and Territory for the year 1958:—

COMMITTALS TO HIGHER COURTS, 1958.

Class of Offence.	N.S.W.	Vic.	Q'land. (a)(b)	S. Aust. (a)	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Against the Person ..	1,374	789	227	193	86	48	32	12	2,761
Against Property ..	5,523	2,830	675	266	339	455	24	61	10,173
Forgery and Offences against the Currency ..	95	201	4	23	13	70	3	1	410
Against Good Order ..	79	63	3	7	8	7	3	..	170
Other ..	256	344	2	16	17	20	4	..	659
Total ..	7,327	4,227	911	505	463	600	66	74	14,173

(a) Twelve months ended 30th June of year shown. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

The following table shows the number of committals to higher courts for each of the years 1954 to 1958:—

COMMITTALS TO HIGHER COURTS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales ..	4,205	4,792	6,056	7,221	7,327
Victoria ..	2,082	2,198	2,624	2,707	4,227
Queensland(a) ..	609	482	572	712	911
South Australia(a) ..	422	426	432	552	505
Western Australia ..	381	454	386	356	463
Tasmania ..	357	348	321	604	600
Northern Territory ..	(a) 46	(a) 45	(a) 87	(a) 62	66
Australian Capital Territory ..	23	25	40	37	74
Australia ..	8,125	8,770	10,518	12,251	14,173

(a) Twelve months ended 30th June of year shown.

(ii) *Rate of Committals, 1881 to 1951.* The rate of committals to higher courts for serious crime at ten-year intervals since 1881 is shown below:—

RATE OF COMMITTALS TO HIGHER COURTS, AUSTRALIA.

Year ..	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1951.
Committals per 10,000 persons ..	12	11	8	6	7	8	5	8

5. **Drunkenness.**—(i) *Cases and Convictions.* The numbers of arrests for drunkenness and the convictions recorded during each of the years 1954 to 1958 are given in the following table:—

DRUNKENNESS: CASES AND CONVICTIONS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
CASES.					
New South Wales ..	72,591	81,199	77,867	76,700	69,085
Victoria ..	20,167	20,685	20,457	25,657	29,752
Queensland(a) ..	21,257	23,986	22,748	23,550	28,242
South Australia(a) ..	5,530	4,772	4,739	5,030	4,312
Western Australia ..	5,850	5,752	5,959	5,484	4,870
Tasmania ..	836	776	705	786	746
Northern Territory ..	(a) 707	(a) 487	(a) 507	(a) 1,059	969
Australian Capital Territory ..	240	231	279	358	385
Australia ..	127,178	137,888	133,261	138,624	138,361

(a) Twelve months ended 30th June of year shown.

DRUNKENNESS: CASES AND CONVICTIONS—*continued.*

State or Territory.	1954.	1955.	1956.	1957.	1958.
CONVICTIONS.					
New South Wales	72,541	80,457	77,195	75,953	68,354
Victoria	19,955	20,437	20,184	25,284	29,434
Queensland(a)	21,199	23,947	22,687	23,521	28,196
South Australia(a)	5,509	4,765	4,732	5,019	4,299
Western Australia	5,809	5,720	5,912	5,428	4,821
Tasmania	798	757	674	760	718
Northern Territory	(a) 699	(a) 474	(a) 502	(a) 1,029	926
Australian Capital Territory	240	231	271	322	380
Australia	126,750	136,788	132,157	137,316	137,128

(a) Twelve months ended 30th June of year shown.

The term "drunkenness" includes drunkenness and disorderliness, and habitual drunkenness.

(ii) *Convictions per 10,000 of Population.* In the twenties, the convictions for drunkenness averaged approximately 100 per 10,000 of population, but the rate fell away considerably during 1930 and 1931, being only 57.1 in the latter year. The average then rose steadily, the annual average for the period 1936 to 1939 being 82.7 and that for the years 1940 to 1945, 90.8. In 1946, the convictions per 10,000 rose very steeply to 132.1, increasing further to 174.5 by 1951, since when they have declined again to 138.9 in 1958.

The rates of convictions for drunkenness since 1954 are shown in the following table:—

CONVICTIONS FOR DRUNKENNESS.
(PER 10,000 OF POPULATION.)

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	211.6	230.4	217.1	209.7	185.1
Victoria	81.3	80.9	77.5	94.6	107.4
Queensland(a)	163.0	180.7	167.7	170.4	200.9
South Australia(a)	70.1	59.0	56.7	58.3	48.5
Western Australia	90.7	86.8	87.3	79.5	68.3
Tasmania	25.6	23.9	20.9	23.0	21.3
Northern Territory	(a)438.8	(a)286.6	(a)287.3	(a)555.8	481.6
Australian Capital Territory	79.0	71.3	78.1	85.6	88.5
Australia	141.4	149.1	140.6	142.8	138.9

(a) Twelve months ended 30th June of year shown.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine and beer per head of population in Australia during the years 1954–55 to 1958–59:—

CONSUMPTION OF INTOXICANTS IN AUSTRALIA PER HEAD OF POPULATION.

Year.	Spirits.	Wine.	Beer.
	Proof Gals.	Gals.	Gals.
1954–55	0.29	1.11	24.26
1955–56	0.31	1.11	24.16
1956–57	0.28	1.15	22.88
1957–58	0.28	1.14	23.00
1958–59	0.30	1.14	22.17

(iv) *Remedial Treatment of Drunkenness.* Legislation has been passed in each State providing for the committal of inebriates to special government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act, 1912–1949; Victoria, Inebriates Act 1958; Queensland, Inebriate Institutions Act of 1896; South Australia, Inebriates Act, 1908–1934, Convicted Inebriates Act, 1913–1934; Western Australia, Inebriates Act, 1912–1919; Tasmania, Inebriates Act, 1885, Inebriate Hospitals Acts, 1892 and 1941; Northern Territory, the Inebriates Act, 1908, of South Australia; Australian Capital Territory, the Inebriates Act, 1900, of New South Wales as amended in 1909, and the Inebriates Ordinance 1938 of the Australian Capital Territory. In New South Wales, the care and treatment of inebriates other than those convicted of an offence are under the control of the Inspector-General of Mental Hospitals. In Victoria, a Psychiatric Clinic has been established at Pentridge Gaol and some remedial treatment is carried out there under the control of the Department of Mental Hygiene. It is proposed to add an alcoholics section to the Psychiatric Clinic in the near future. The Inebriates Home in Queensland is under the control of the Department of Health and Home Affairs. An alcoholism clinic was opened as an annexe to the Brisbane General Hospital in 1958 and in-patient and out-patient treatment is given there to voluntary patients. In Western Australia, the treatment of inebriates is under the control of the Inspector-General of Mental Health Services. In Tasmania, a charitable institution has been established by the Prisons Department, but treatment is purely custodial. A certain amount of remedial treatment is undertaken by the Director of Mental Health. Under an agreement between the Commonwealth and New South Wales and by virtue of the Insane Persons and Inebriates (Committal and Detention) Ordinance 1936–1937, inebriates committed to an institution from the Australian Capital Territory are placed in New South Wales institutions, where they are under the control of the appropriate New South Wales authorities and receive the same care and treatment as inebriates committed in the State.

6. *First Offenders.*—In all States, statutes dealing with first offenders have been in force for many years. Existing legislation is as follows:—New South Wales, Crimes Act, 1900–1955, First Offenders (Women) Act, 1919, amended in 1929; Victoria, Crimes Act 1958; Queensland, Criminal Code Acts, 1899 to 1945; South Australia, Offenders Probation Act, 1913–1953; Western Australia, Criminal Code Act, 1913–1956; Tasmania, Probation of Offenders Act, 1934; Northern Territory, the Offenders Probation Act, 1887, of South Australia; Australian Capital Territory, the Crimes Act, 1900, of New South Wales amended by Crimes Ordinances 1931, 1942, 1944 and 1951. Provisions similar to those of the First Offenders (Women) Act, 1919, of New South Wales have been incorporated in the Australian Capital Territory law by the First Offenders (Women) Ordinance 1947. In New South Wales, Queensland, South Australia, and Western Australia, the court may allow a first offender convicted of a minor offence to go free on recognizances being entered into for his good behaviour for a certain period. In Victoria, in accordance with the provisions of the Crimes Act 1958, and in Queensland, in accordance with the Offenders Probation and Parole Act of 1959, where any person is convicted by any court of any offence for which a term of imprisonment may be imposed (otherwise than in default of payment of a fine) and the court is of the opinion that, having regard to the circumstances, including the nature of the offence and the character and antecedents of the offender, it is expedient to do so, the court may, instead of sentencing him, make a probation order requiring him to be under the supervision of a probation officer for such period being not less than one year and not more than five years as is specified in the order. In Western Australia, the court may also dismiss the indictment or complaint without proceeding to conviction. In Tasmania, the court may discharge an offender on his recognizance, with or without sureties, to be of good behaviour and to appear for sentence when called upon at any time during the following three years. The offender may be placed under the supervision of a probation officer. In the Northern Territory, the court may suspend the sentence imposed on a first offender punishable on summary conviction, or by less than two years imprisonment, upon his entering into a recognizance to be of good behaviour for a certain period. In the Australian Capital Territory, the court may, without proceeding to a conviction, dismiss a charge in respect of an offence punishable summarily, or may discharge the person charged conditionally on his entering into a recognizance to be of good behaviour for a certain period. Alternatively, the court may suspend the sentence imposed on a first offender upon his entering into a recognizance to be of good behaviour for a certain period.

C. CIVIL PROCEEDINGS.

The total numbers of complaints entered and the amounts awarded to plaintiffs during 1958 are shown in the following table. The figures are compiled from returns from the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Courts of Summary Jurisdiction in the Northern Territory and the Court of Petty Sessions in the Australian Capital Territory.

CIVIL CASES AT LOWER COURTS, 1958.

Particulars.	N.S.W.	Vic.	Q'land. (a)	S.Aust.	W.Aust.	Tas.	N.T. (a)	A.C.T.	Aus- tralia.
Plaints Entered No.	63,929	133,041	31,524	65,306	46,077	30,840	1,339	2,025	374,081
Amount Awarded to Plaintiffs £	435,303	2,425,254	660,374	1,193,716	562,166	412,499	68,557	27,642	5,785,511

(a) Twelve months ended 30th June, 1958.

§ 3. Children's Courts.

1. **New South Wales.**—Children's Courts, established in 1905, exercise jurisdiction under the Child Welfare Act, 1939–55. Where practicable, they are not held in ordinary court rooms, and persons not directly interested are excluded from any hearing in order that children may be protected against the adverse influences which they would encounter in ordinary courts.

The magistrates exercise all the powers of a Court of Petty Sessions in respect of offences committed by or against children under 18 years of age. They also exercise jurisdiction in respect of neglected and uncontrollable children. Their functions are reformative, not punitive; they may commit children to institutions, to the care of persons other than the parents, or to the care of the Minister for Education.

2. **Victoria.**—Under the Children's Court Act 1958, the jurisdiction of Children's Courts is restricted, with certain exceptions, to children up to 17 years of age. Two stipendiary special magistrates with jurisdiction throughout the State and, in addition, honorary special magistrates operate in some metropolitan courts and provincial cities. At country courts to which no special magistrates are appointed, the local stipendiary magistrate usually constitutes the bench. The Children's Court may deal with all offences except homicide. However, consent to the jurisdiction of the Children's Court must be indicated by the child (or by a parent if the child is under 14 years of age) before an indictable case may proceed.

The primary aim of the Children's Court is reformation and rehabilitation of the offender and the court is bound under Section 27(3) of the Children's Court Act 1958 to "firstly have regard to the welfare of the child".

The probation system has been in use by the Children's Court since 1907, and there are now in Victoria a large number of honorary probation officers as well as six stipendiary probation officers. Problem cases are referred by the Court for investigation to a Children's Court Clinic, which is staffed by psychiatrists, psychologists and social workers.

3. **Queensland.**—Children, under the age of 17 years, before the Court on summary charges are dealt with under the Children's Court Acts, 1907–1930, and the State Children Acts, 1911–1955. The Children's Court in the metropolitan area is presided over by a magistrate, and the services of the psychiatric clinic are available to him if he considers they are needed. Proceedings are held *in camera*. A non-commissioned police officer is present to offer any observations he considers necessary and to assist the magistrate. In country areas, the court is presided over by the local stipendiary magistrate or, in his absence, by two justices. If found guilty, a child may be either admonished, released on probation or committed to the care of the State Children Department or an institution. A conviction will not necessarily be recorded against him. His parent or guardian may be ordered to pay damages to the wronged party, and in default is liable to the same consequences as a defendant in an ordinary Court of Petty Sessions.

4. South Australia. Provision for the treatment of juvenile offenders under the age of 18 years is contained in various Acts, the main ones being the Maintenance Act, 1926–1952, the Juvenile Courts Act, 1941, the Justices Act, 1921–1957, and the Offenders Probation Act, 1913–1953. A Juvenile Court to hear cases of offences by children is constituted by a special magistrate or two justices of a Juvenile Court and it has power to determine all charges other than homicide. A child convicted of an offence punishable by imprisonment can be committed by a court only to a reformatory. For indictable offences, the penalty is committal to a reformatory or a fine of up to £50.

5. Western Australia. Children's Courts deal with offenders under the age of 18 years and to hear cases of certain offences against children. Special magistrates are appointed for Children's Courts, and the Governor may appoint other persons to be members of a particular Children's Court. One member may sit and adjudicate with the special magistrate, but in the magistrate's absence at least two members must be present.

A Children's Court is deemed to be a court of summary jurisdiction and may exercise exclusive jurisdiction in respect of all offences except wilful murder, murder, manslaughter or treason alleged to have been committed by children.

Adults charged with certain indictable offences against children may forgo the right to trial by jury and agree to be dealt with summarily by Children's Courts.

6. Tasmania. Under the provisions of the Infants' Welfare Act 1935, Children's Courts are established to deal with offenders under the age of 17 years. Special magistrates are appointed for the Children's Courts by the Governor. One or two special magistrates, or one or two justices, constitute a court.

A Children's Court is deemed to be a court of summary jurisdiction, and may exercise exclusive jurisdiction in respect of all offences alleged to have been committed by children.

7. Northern Territory. The Child Welfare Ordinance 1958 provides for the establishment of Children's Courts. These courts are constituted by a special magistrate and one member of the Child Welfare Council authorized to sit as a member of the Children's Court. Where no Children's Court has been established for a particular area, or where special circumstances require it, the jurisdiction of a Children's Court may be exercised by a court of summary jurisdiction constituted by a special magistrate.

Proceedings in a Children's Court are in form similar to proceedings in a court of summary jurisdiction, but no reports of proceedings may be published without the express authority of the Court, and any person not directly concerned may be excluded from the hearing.

A Children's Court has jurisdiction in respect of all offences committed by persons under 18 years of age in respect of which proceedings may be taken in a court of summary jurisdiction. In dealing with such offences, the Court may, in cases other than homicide, impose a fine not exceeding fifty pounds or a sentence of imprisonment for not more than six months, and, in addition to or in lieu of these punishments, may make an order committing the child to the care of the Director of Child Welfare or of a person who is willing to undertake the care on the Courts' terms and conditions (in which case the child may be declared a State child), or it may commit the child to an institution for a specified period or release the child on probation on such conditions as the Court orders. Children's Courts also exercise jurisdiction in respect of destitute, neglected, incorrigible or uncontrollable children.

8. Australian Capital Territory. The Child Welfare Ordinance 1957 provides that the Court of Petty Sessions constitutes the Children's Court when it is hearing proceedings involving persons under the age of 18 years. Its proceedings are similar to those of an ordinary Court of Petty Sessions except that persons not directly interested are excluded from the Court.

In addition to the power to deal with summary offences, the Children's Court has power to hear and determine summarily a charge for an indictable offence other than an offence punishable by death. In either case, the Court's powers include releasing an offender on probation, committing him to the care of a specified person, making him a government ward, or committing him to an institution for up to three years.

§ 4. Higher (Judges') Courts.

A. CRIMINAL PROCEEDINGS.

1. Persons Convicted at Higher Courts.—The following table shows for each State and Territory and for Australia as a whole the number of persons convicted at higher courts during 1958, classified according to the nature of the offence:—

PERSONS CONVICTED AT HIGHER COURTS, 1958.

Offence.	N.S.W.	Vic.	Q'land. (a)(b)	S. Aust.	W. Aus.	Tas. (c)	N.T.	A.C.T.	Aus- tralia.
I. OFFENCES AGAINST THE PERSON.									
Concealment of Birth ..	..	..	1	3	..	..	..	..	4
Murder ..	8	1	1	2	..	2	..	..	14
Attempted Murder ..	3	1	4	..	..	..	..	..	8
Manslaughter ..	12	14	10	8	9	..	4	1	58
Culpable Driving ..	23	..	..	..	..	..	..	..	23
Rape ..	4	3	7	3	6	2	..	..	25
Other Offences against Females ..	212	187	46	76	1	9	4	3	538
Abduction ..	2	8	1	..	2	1	..	1	13
Incest ..	8	17	10	3	..	1	..	..	41
Unnatural Offences ..	104	166	32	20	8	9	1	3	343
Abortion and Attempts to Procure ..	7	..	..	1	3	..	..	..	11
Bigamy ..	20	16	8	2	5	..	1	..	52
Aggravated Assault ..	39	..	41	3	..	6	3	5	97
Common Assault ..	32	35	3	4	11	..	..	1	86
Malicious Wounding ..	37	25	..	..	..	..	..	..	62
Other Offences against the Person ..	19	8	12	14	3	4	..	..	60
Total ..	530	481	176	139	48	34	13	14	1,435
II. OFFENCES AGAINST PROPERTY.									
Burglary, Breaking and Entering ..	922	695	367	185	132	174	8	50	2,533
Robbery and Stealing from the Person ..	71	45	20	12	1	9	..	..	158
Horse, Cattle and Sheep Stealing ..	..	11	4	4	3	1	2	..	25
Embezzlement or Fraudulent Misappropriation ..	40	40	13	7	12	1	1	..	114
Other larceny ..	433	177	31	13	16	..	2	1	673
Illegally using Vehicles ..	..	55	219	..	2	..	..	..	276
Receiving ..	93	49	11	12	3	4	..	2	174
Fraud and False Pretences ..	115	40	14	30	11	11	..	9	230
Arson ..	8	5	7	3	1	3	..	..	27
Malicious Damage to Property or Animals ..	4	2	..	..	..	..	..	..	6
Other Offences against Property ..	12	24	12	6	2	1	..	1	58
Total ..	1,698	1,143	698	272	183	204	13	63	4,274
III. FORGERY AND OFFENCES AGAINST THE CURRENCY.									
Forgery and Uttering Forged Instruments ..	22	40	5	21	5	12	3	..	108
Other Offences against the Currency ..	..	..	..	..	1	..	..	..	1
Total ..	22	40	5	21	6	12	3	..	109
IV. OFFENCES AGAINST GOOD ORDER									
..	2	7	3	..	5	18	1	..	36
V. OTHER									
..	22	108	1	25	13	8	1	..	178
Total all Offences ..	2,274	1,779	883	457	255	276	31	77	6,032

(a) Year ended 30th June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Convictions.

2. **Persons Convicted at Higher Courts.**—The numbers of persons convicted and rates of conviction at higher courts for the years 1954 to 1958 are given in the following table:—

PERSONS CONVICTED AT HIGHER COURTS.

State or Territory.	1954.	1955.	1956.	1957.	1958.
NUMBER.					
New South Wales	(a) 1,449	(a) 1,631	(a) 1,933	2,225	2,274
Victoria	912	1,043	1,249	1,643	1,779
Queensland(a)(b)	502	382	431	584	883
South Australia	312	340	362	459	457
Western Australia	216	260	241	200	255
Tasmania(c)	244	154	184	205	276
Northern Territory	(a) 51	(a) 55	(a) 72	(a) 59	31
Australian Capital Territory ..	26	20	40	32	77
Australia	3,712	3,885	4,512	5,407	6,032

PER 10,000 OF POPULATION.

New South Wales	(a) 4.3	(a) 4.7	(a) 5.5	6.1	6.2
Victoria	3.7	4.1	4.8	6.1	6.5
Queensland(a)(b)	3.9	2.9	3.2	4.2	6.3
South Australia	3.9	4.1	4.3	5.3	5.0
Western Australia	3.4	3.9	3.6	2.9	3.6
Tasmania(c)	7.8	4.9	5.7	6.8	8.2
Northern Territory	(a) 32.0	(a) 33.3	(a) 41.2	(a) 32.2	16.1
Australian Capital Territory ..	8.6	6.2	11.5	8.5	18.7
Australia	4.1	4.2	4.8	5.6	6.1

(a) Twelve months ended 30th June of year shown. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Convictions.

3. **Habitual Offenders.**—An account of the methods adopted in each State in connexion with habitual offenders is given in the following paragraphs.

(i) *New South Wales.* The Habitual Criminals Act, 1957 gives power to judges to declare as an habitual criminal any person of or above the age of 25 years who has been convicted on indictment and has on at least two occasions previously served separate terms of imprisonment as a consequence of convictions for indictable offences provided that such offences were not dealt with summarily without his consent. A person may also be pronounced by a Judge to be an habitual criminal upon recommendation by a Stipendiary Magistrate.

A judge, having pronounced a person to be an habitual criminal, shall sentence him to a term of imprisonment of not less than five years nor more than fourteen years.

An habitual criminal so sentenced may be considered for release on licence in the light of his conduct and attitude after he has served two-thirds of his sentence. He will, in any event, be granted a remission to permit his release on licence after five-sixths of his sentence, subject to good conduct and industry.

At 30th June, 1959, there were 101 prisoners detained in pursuance of the legislation.

(ii) *Victoria.* The Indeterminate Sentences provisions of the Crimes Act were abolished as from 1st July, 1957, with the proclamation of the Penal Reform Act 1956. The terms "reformatory prison" and "habitual criminal" also ceased to exist as from that date.

Under the Penal Reform Act 1956, a sentence of twelve months or more must contain provision for an offender's release on parole after he has served a minimum term which must be named. With sentences of under twelve months, the courts may fix a minimum term.

The relevant parts of the Penal Reform Act 1956 have now been embodied in Sections 506 to 542 of the Crimes Act 1958. In the case of the persistent offender, if the court is satisfied that it is expedient for the protection of the public that he should be detained in gaol for a substantial time, the court may pass a sentence of preventive detention for a term of not more than ten years and where any such sentence is passed shall fix a minimum term during which the offender shall not be eligible to be released on parole.

(iii) *Queensland.* Sections 659A to 659I of the Queensland Criminal Code deal with habitual criminals. Only the Supreme Court or a judge thereof may declare a person to be an habitual criminal. An habitual criminal is detained in a reformatory prison (Section 659D) and there employed (Section 659F).

Where the Supreme Court or a judge recommends the discharge of an habitual criminal, the Governor may direct his discharge and may order him so long as he remains in Queensland to report at intervals during any period not exceeding two years (Section 659G).

An habitual criminal may be released by order in writing (called a "parole order") by the Parole Board set up under the provisions of "The Offenders Probation and Parole Act of 1959" after he has been detained during a period of two years (Section 32).

(iv) *South Australia.* The Criminal Law Consolidation Act, 1935-1956 provides that persons previously convicted of a certain number of indictable offences of a particular class may be declared habitual criminals and shall then be detained during Her Majesty's pleasure. Proof of previous convictions is in all cases relevant to the question of penalty.

(v) *Western Australia.* Under the Criminal Code Amendment Act, 1918, power is given to sentence prisoners to be detained in a reformatory prison during the Governor's pleasure, where such prisoner is deemed to be an habitual criminal, or in other special circumstances where the Court considers such a sentence is fit.

The number under preventive detention on 30th June, 1958, was 21 and the total number dealt with since the passing of the Act was 175.

(vi) *Tasmania.* Since the Indeterminate Sentences Act came into operation in 1922, 98 persons have been confined under its provisions and 15 were in custody at the end of 1959.

Of the 83 released on probation 23 have been re-committed.

(vii) *Northern Territory.* The Habitual Criminals Amendment Act, 1907, of South Australia is still in force in the Northern Territory. By virtue of that Act, the Judge of the Northern Territory has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is detained for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large.

(viii) *Australian Capital Territory.* The Habitual Criminals Act, 1905, of New South Wales is still in force in the Australian Capital Territory. By virtue of that Act, a judge of the Australian Capital Territory Supreme Court has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is confined for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large. Habitual criminals declared in the Australian Capital Territory are detained in New South Wales.

4. *Capital Punishment.*—There were ten executions in Australia during the period 1949 to 1958. Three took place in Victoria (in 1951), four in South Australia (one each in 1950, 1953, 1956, and 1958) one in Western Australia (in 1952), and two in the Northern Territory (in 1952). In each case the offence was murder.

Under the Criminal Code Amendment Act of 1922, capital punishment was abolished in Queensland, and in New South Wales the Crimes Act was amended in 1955 abolishing capital punishment for all offences except treason and piracy. In the Australian Capital Territory, the Child Welfare Ordinance 1957 now provides that no death sentence is to be pronounced or recorded against a person under the age of 18 years.

In the early days of the history of Australia, the penalty of death was attached to a large number of offences, many of which would now be dealt with in a Magistrate's Court. The present tendency is to restrict death sentences to persons convicted of murder. Although rape is a capital offence in some States, the penalty of death has not been imposed in recent years on persons convicted of it.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; from 1931 to 1940, 1; and from 1941 to 1950, 0.5.

B. DIVORCE AND OTHER MATRIMONIAL RELIEF.

1. Separation and Maintenance Orders of Courts of Summary Jurisdiction.—In all States and Territories there are laws enabling a wife whose husband leaves her or the children of the marriage without adequate means of support to obtain a maintenance order against the husband from a court of summary jurisdiction. In some States and the Northern Territory, courts of summary jurisdiction also have power to make separation orders. *A separation order is primarily intended for the protection of the person of the wife.*

2. Divorce and Other Matrimonial Relief Granted by Higher Courts.—The matrimonial relationship may be terminated by a Supreme Court of a State or Territory in one of three ways. Firstly, there may be a dissolution of the marriage, commonly known as divorce; secondly, the courts may annul a marriage; and thirdly, there can be a judicial separation of the parties.

Up till now, each State has been primarily responsible for the provision of matrimonial relief. The law has varied from State to State, for example, as to the period of desertion needed to obtain a decree for the dissolution of marriage.

In 1959, however, the Commonwealth Parliament passed the Matrimonial Causes Act 1959 which will probably come into force in the second half of 1960. The Act establishes uniform grounds throughout the whole of the Commonwealth for the termination of marriage. While the Act displaces corresponding State law, it vests jurisdiction in existing State and Territorial Courts.

All statistical information given in this section relates to proceedings under the system before the passing of the Commonwealth Act. The various grounds of dissolution available are shown in the tables.

3. Matrimonial Causes Act 1959.—When the Commonwealth Act, the Matrimonial Causes Act 1959, comes into force, a decree for the dissolution of marriage may be granted under it on various grounds, such as adultery, desertion, insanity, separation for five years in certain circumstances, or failure to comply with a restitution decree.

Proceedings for nullity of marriage may be instituted in respect of a marriage which is void or voidable. A marriage which is void has no existence at all and so it is not legally necessary to obtain a decree of nullity of marriage, but since the issue may depend on difficult questions of fact, such as proof that the consent of one of the parties to the marriage was not a real consent, it is advisable and customary to seek a court judgment which decides the question of the validity of the marriage.

Proceedings for annulling a voidable marriage may be instituted on various grounds as, for example, where at the time of the marriage either party was a mental defective. Proceedings must be taken before the marriage is terminated by dissolution or death. A voidable marriage is void from the date of the decree absolute, but until then the parties have the status of married people and transactions concluded on the basis of the existence of that status cannot be undone or reopened. Since the parties to a marriage which is void or which has been voided do not have the status of married people, they may re-marry.

A decree for the dissolution or annulment is first a decree nisi. The decree automatically becomes absolute at the expiration of three months unless it is in the meantime rescinded, appeal proceedings are instituted, or there are children of the marriage under the age of 16, in which case the Court must be satisfied that appropriate arrangements have been made for their welfare before the decree will become absolute. The parties cannot re-marry until a decree nisi has become absolute.

A decree of judicial separation is available on most of the grounds available for divorce. It leaves unimpaired the status of marriage but suspends rights and duties with respect to cohabitation. A husband is not responsible for the acts of his wife except that he is liable for necessities supplied to her if he has failed to pay alimony ordered by a court. Persons who have judicially separated cannot re-marry but a divorce may be obtained on the same facts as those on which the decree of judicial separation is based.

The new Commonwealth Act provides for financial grants to approved marriage guidance organizations and the courts are enjoined to consider at all times the possibility of reconciliation, and they may take certain steps to endeavour to effect a reconciliation.

4. **Number of Petitions Filed.**—The following table shows the number of petitions for dissolution of marriage, nullity of marriage and judicial separation filed in each State during 1958:—

PETITIONS FILED FOR DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION, 1958.

Petition for—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage									
Husband Petitioner ..	1,810	736	474	342	323	120	14	14	3,833
Wife Petitioner ..	2,292	843	478	449	321	147	17	23	4,570
Total ..	4,102	1,579	952	791	644	267	31	37	8,403
Nullity of Marriage									
Husband Petitioner ..	20	9	4	1	6	..	..	..	40
Wife Petitioner ..	20	6	4	4	..	1	..	..	35
Total ..	40	15	8	5	6	1	..	..	75
Judicial Separation									
Husband Petitioner ..	1	..	2	..	10	..	..	..	13
Wife Petitioner ..	21	..	9	..	5	..	..	1	36
Total ..	22	..	11	..	15	..	..	1	49
Total Petitions									
Husband Petitioner No.	1,831	745	480	343	339	120	14	14	3,886
Wife Petitioner No.	2,333	849	491	453	326	148	17	24	4,641
%	44	47	49	43	51	45	45	37	46
%	56	53	51	57	49	55	55	63	54
Grand Total ..	4,164	1,594	971	796	665	268	31	38	8,527

5. **Number of Divorces Granted, 1958.**—The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State during 1958:—

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED, 1958.

Decree for—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage(a)									
Husband Petitioner ..	1,417	816	375	220	285	80	8	17	3,218
Wife Petitioner ..	1,800	882	384	263	251	85	7	19	3,691
Total ..	3,217	1,698	759	483	536	165	15	36	6,909
Nullity of Marriage(b)									
Husband Petitioner ..	8	9	4	2	1	..	1	..	25
Wife Petitioner ..	10	10	3	7	5	..	..	1	36
Total ..	18	19	7	9	6	..	1	1	61
Judicial Separation									
Husband Petitioner ..	..	..	..	1	1	..	..	..	2
Wife Petitioner ..	5	..	1	4	1	..	..	..	11
Total ..	5	..	1	5	2	..	..	..	13
Total Decrees									
Husband Petitioner No.	1,425	825	379	223	287	80	9	17	3,245
Wife Petitioner No.	1,815	892	388	274	257	85	7	20	3,738
%	44	48	49	45	53	48	56	46	46
%	56	52	51	55	47	52	44	54	54
Grand Total ..	3,240	1,717	767	497	544	165	16	37	6,983

(a) Decrees absolute.

(b) Final decrees.

6. Number of Divorces granted, 1954 to 1958.—The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory for each year from 1954 to 1958:—

DIVORCES GRANTED: AUSTRALIA.

DISSOLUTION OF MARRIAGE (DECREES ABSOLUTE).

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	2,816	2,874	3,125	2,975	3,217
Victoria	(a)1,519	(a)1,674	(a)1,255	1,345	1,698
Queensland	710	801	703	682	759
South Australia	594	624	567	529	483
Western Australia	530	479	544	541	536
Tasmania	235	233	196	179	165
Northern Territory	20	18	25	18	15
Australian Capital Territory	33	21	20	29	36
Australia	6,457	6,724	6,435	6,298	6,909

NULLITY OF MARRIAGE (FINAL DECREES).

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	28	17	18	32	18
Victoria	20	16	13	15	19
Queensland	4	2	5	7	7
South Australia	4	4	5	8	9
Western Australia	2	6	4	1	6
Tasmania	2	..	1	1	..
Northern Territory .. .. .	..	..	..	..	1
Australian Capital Territory .. .. .	..	..	..	..	1
Australia	60	45	46	64	61

JUDICIAL SEPARATION.

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	7	9	4	6	5
Victoria .. .. .	..	1	2	2	..
Queensland .. .. .	..	..	..	..	1
South Australia	2	..	..	1	5
Western Australia	1	3	4	3	2
Tasmania	1	..	..	..	..
Northern Territory .. .. .	..	..	..	..	..
Australian Capital Territory .. .. .	..	..	1	..	..
Australia	11	13	11	12	13

(a) Decrees nisi granted.

7. **Average Number of Divorces granted Annually.**—The ten-year averages of the numbers of divorces granted annually in Australia for the 80 years from 1871 to 1950 are as follows.

DIVORCES: AUSTRALIA.

Decade 1871–80.	1881–90.	1891–1900.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50
Average 29	70	357	399	742	1,693	2,508	6,187

8. **Grounds on which Divorces were Granted.**—The grounds on which dissolutions of marriage, nullities of marriage and judicial separations were granted during 1958 in each State and Territory are shown in the following table, but it should be borne in mind that the legal grounds for divorce vary as between States and Territories:—

GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION, 1958.

Ground.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage—									
Adultery	800	440	228	203	251	42	5	16	1,985
Bigamy	1	..	1	..	..	..	..	..	2
Cruelty	110	9	..	82	..	2	1	4	208
Cruelty and Drunkenness ..	117	12	..	..	1	1	..	..	131
Desertion	2,125	1,127	526	184	146	119	8	15	4,250
Desertion and Adultery ..	..	81	1	..	2	..	..	..	84
Drunkenness and Failure to Support ..	42	2	..	4	..	..	..	1	49
Drunkenness and Neglect of Domestic Duties ..	13	1	..	..	..	1	..	..	15
Failure to Pay Maintenance ..	..	..	..	1	19	..	..	..	20
Imprisonment	9	11	..	..	5	..	..	..	25
Incest .. ..	..	1	..	..	..	..	..	..	1
Insanity .. ..	..	12	2	1	2	..	..	..	17
Presumption of Death ..	..	..	1	2	1	..	..	..	4
Refusal to Consummate ..	..	..	..	..	1	..	..	..	1
Separation for over 5 years .. ..	..	..	..	6	108	..	..	..	114
Sodomy .. ..	..	2	..	..	..	..	1	..	3
Total	3,217	1,698	759	483	536	165	15	36	6,909
Nullity of Marriage—									
Non-consummation .. ..	..	2	1	2	1	..	..	1	19
Bigamy	8	14	4	6	..	..	1	..	33
Impotence	8	..	2	1	..	..	..	..	3
Invalid Marriage .. ..	..	1	..	..	..	..	..	..	1
Want of Consent .. ..	..	..	..	..	..	..	..	..	..
Failure to Comply with Legal Provision ..	1	..	..	..	..	..	..	..	1
Consanguinity	1	..	..	..	..	..	..	..	1
Not Stated .. ..	..	2	..	..	..	..	..	..	2
Total	18	19	7	9	6	..	1	1	61
Judicial Separation—									
Adultery	1	..	1	5	..	..	..	..	1
Cruelty	2	..	..	..	..	..	..	..	8
Desertion	2	..	..	..	2	..	..	..	4
Total	5	..	1	5	2	..	..	..	13

(a) Includes non-compliance with order for restitution of conjugal rights, 375.

9. **Ages of Husband and Wife at Time of Dissolution of Marriage.**—The following table shows the number of husbands and wives in each age group who were parties to marriages dissolved in 1958. Age is taken at the time the decree absolute is made.

Forty-two per cent. of wives were in the 25–34 years age group and 42 per cent. of husbands in the 30–39 years age group. These proportions have varied little during recent years and are considerably higher than the proportions of married persons of those age groups in the whole population (27 per cent. and 26 per cent. respectively at the Census of 30th June, 1947; 28 per cent. and 26 per cent. respectively at the Census of 30th June, 1954).

AGES OF PARTIES AT TIME OF DISSOLUTION OF MARRIAGE, AUSTRALIA, 1958.

Age of Husband (Years).	Age of Wife (Years).											Total Husbands.
	Under 21.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.	Not stated.	
Under 21 ..	4	71	19	3	..	..	..	..	..	..	..	4
21 to 24 ..	13	82	339	85	9	6	..	..	..	..	..	106
25 to 29 ..	13	285	621	691	114	6	..	1	..	..	..	939
30 to 34 ..	2	15	167	557	492	107	22	..	..	..	..	1,326
35 to 39 ..	..	5	36	148	428	321	65	17	1	2	5	1,370
40 to 44 ..	..	1	11	43	136	290	247	38	6	1	1	1,023
45 to 49 ..	..	..	1	17	42	101	213	144	20	21	..	774
50 to 54 ..	..	..	1	4	10	34	53	82	79	61	..	544
55 to 59 ..	..	..	1	2	6	7	25	30	1	..	..	284
60 and over ..	..	..	2	5	..	1	3	1	..	..	..	210
Not Stated ..	..	..	..	..	..	..	..	..	..	..	116	129
Total Wives	32	459	1,398	1,555	1,237	873	632	318	170	109	126	6,909

10. **Duration of Marriages Dissolved and Number of Children.**—The following table shows the number of dissolutions of marriage granted in 1958, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree nisi was made absolute) and number of children. The majority of marriages dissolved are of less than fifteen years' duration and 40 per cent. of them are of less than ten years' duration.

DURATION OF MARRIAGES DISSOLVED AND NUMBER OF CHILDREN(a) AUSTRALIA, 1958.

Duration of Marriage (Years).	Number of Marriages dissolved with—											Total Dis- solutions of Marriage.	Total Chil- dren. (a)		
	0 Chil- dren.	1 Child.	2 Chil- dren.	3 Chil- dren.	4 Chil- dren.	5 Chil- dren.	6 Chil- dren.	7 Chil- dren.	8 Chil- dren.	9 Chil- dren.	10 Chil- dren.			11 Chil- dren and over.	N.S.
1 year and under 2	20	3	1	..	..	..	..	..	..	..	..	..	..	24	5
2 years and under 3	41	10	3	1	1	..	..	..	..	..	..	..	..	56	23
3 " " "	98	30	4	2	..	1	..	..	..	..	..	..	..	134	44
4 " " "	176	67	13	2	..	1	..	..	..	..	..	..	..	259	104
5 " " "	219	111	44	2	..	2	..	..	..	..	..	..	..	378	215
6 " " "	213	160	47	12	2	2	..	..	..	..	..	..	..	436	308
7 " " "	211	155	75	10	5	..	..	..	..	..	..	..	..	456	355
8 " " "	201	155	84	22	4	..	..	..	..	..	..	..	..	466	405
9 " " "	186	140	93	38	5	3	1	..	..	..	..	..	..	466	481
10 " " "	169	143	97	38	9	2	1	..	..	..	..	..	..	459	503
11 " " "	114	115	103	53	10	3	1	..	..	..	..	..	..	399	541
12 " " "	108	113	112	58	17	3	3	..	..	..	..	..	..	414	612
13 " " "	72	86	78	53	12	5	1	2	..	..	..	..	..	309	494
14 " " "	68	71	66	28	11	2	2	..	..	..	..	..	..	248	353
15 " " "	57	65	65	41	20	4	3	..	..	..	..	..	..	255	436
16 " " "	67	64	73	34	16	5	1	..	1	..	..	..	..	261	415
17 " " "	60	52	46	32	13	4	2	2	..	..	..	..	..	211	338
18 " " "	50	57	73	26	8	4	1	..	3	..	..	..	..	222	363
19 " " "	37	46	43	28	14	5	2	..	..	..	..	..	..	175	309
20 " " "	41	36	45	26	16	9	1	1	1	..	..	..	..	176	334
21 " " "	70	93	140	72	40	15	7	5	..	..	1	..	..	443	912
25 " " "	55	71	95	54	43	18	13	4	4	..	..	..	..	357	823
30 " " "	31	25	50	32	26	10	7	2	..	2	..	2	..	187	472
35 " " "	8	9	17	16	13	5	3	3	..	1	2	..	..	77	236
40 " " "	3	2	7	5	4	4	..	1	1	..	..	..	..	27	82
45 " " and over	3	3	2	1	2	..	1	..	..	..	..	..	1	12	24
Not Stated ..	1	..	..	..	..	..	..	..	..	..	..	..	1	2	..
Total Dissolutions of Marriage ..	2,379	1,882	1,476	686	291	106	50	20	10	3	2	3	1	6,909	..
Total Children (a) ..	..	1,882	2,952	2,058	1,164	530	300	140	80	27	20	34	..	..	9,187

(a) The term "children" used in the above table, being dependent upon State legislation and court rules, is not comparable in all States, and is defined as follows:—New South Wales, Victoria and Western Australia, issue of the marriage of all ages, living and dead; Queensland, children, including adoptions and step-children of all ages, living and dead; South Australia, issue of the marriage, living, under 16; Tasmania, living issue of the marriage.

11. Number of Divorced Persons at each Census 1901 to 1954.—The following table shows the number and proportion of divorced persons in Australia at each census from 1901 to 1954. A classification of these persons by age appeared in earlier issues of the Official Year Book (*see* No. 39, p. 269). Prior to 1911, no record was made of divorced persons in South Australia, so comparisons cannot be made to extend beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA.

Sex.	Number.						Proportion per 10,000 of population, 15 years of age and over.					
	1901. (a)	1911.	1921.	1933.	1947.	1954.	1901. (a)	1911.	1921.	1933.	1947.	1954.
Males ..	1,234	2,368	4,233	10,298	25,052	32,389	10	15	23	42	89	100
Females ..	1,149	2,140	4,304	10,888	27,516	36,650	10	15	24	46	96	115

(a) Excludes South Australia.

C. BANKRUPTCY.

1. General.—Particulars relating to bankruptcy in each State to the end of 1927 were incorporated in issues of the Official Year Book prior to No. 23. On 1st August, 1928, the Commonwealth Bankruptcy Act, which is now the Bankruptcy Act 1924–1959, came into operation.

Under the Bankruptcy Act 1924–1959, the Commonwealth is divided into bankruptcy districts which coincide generally with State boundaries. A Federal Court of Bankruptcy has been established with jurisdiction throughout Australia but it exercises this jurisdiction mainly in the bankruptcy districts of New South Wales, which includes the Australian Capital Territory, and Victoria. Certain State courts have been invested with federal jurisdiction in bankruptcy and, outside New South Wales and Victoria, usually exercise that jurisdiction in the appropriate bankruptcy district.

Any person unable to pay his debts may voluntarily apply for the sequestration of his estate, or his creditors may apply for a compulsory sequestration, if he has committed an act of bankruptcy. The act of bankruptcy usually relied on is non-compliance by a debtor with a bankruptcy notice which requires the debtor to whom it is addressed to pay within a specified time, to a creditor who has obtained a final judgment or order to pay, the amount of the debt or satisfy the Court that he has a counter-claim, set-off, or cross demand which equals or exceeds the judgment debt. If a bankruptcy notice is not complied with, a creditor may thereupon present a petition against a debtor provided that—

- (1) the debt or debts amount to £50;
- (2) the act of bankruptcy relied on has occurred within the six months preceding the presentation of the petition; and
- (3) the statutory requirements relating to domicile or residence are applicable to the debtor.

Upon the issue of a sequestration order, the property of the bankrupt vests in the official receiver named in the order and his property is divisible among his creditors in accordance with the provisions of the Act. No creditor to whom the bankrupt is indebted in respect of any debt provable in bankruptcy has any remedy against the property or person of the bankrupt except by leave of the court.

Under Part XI of the Bankruptcy Act 1924–1959, instead of having a sequestration order made against his estate, a debtor may compound with his creditors or assign his estate for their benefit. Under Part XII of the Act, a debtor may enter into a scheme of arrangement. The object of Parts XI and XII of the Act is to allow a debtor and his creditors to enter into an agreement concerning the debts due to the creditors without having a sequestration order made against the debtor.

The Court has power to decide questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The Bankruptcy Act 1924–1959 provides for an Inspector-General in Bankruptcy, who performs such duties as are prescribed. The Act also provides for a Registrar and an Official Receiver to be appointed for each bankruptcy district.

A Registrar in Bankruptcy is controlled by the Court and has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and exercises such functions of an administrative nature as are authorized by the Court. He may examine a bankrupt or a person indebted to a bankrupt or having in his possession any of the estate or effects of a bankrupt. Stipendiary magistrates are appointed Deputy Registrars in country districts.

All sequestrated estates are vested in an Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties are to investigate the conduct, property and transactions of the debtor, and the cause of bankruptcy of a debtor and to realize and administer the estate of the debtor. In respect of these activities, the Official Receiver is under the control of the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement, composition, or assignment (Parts XI and XII of the Bankruptcy Act) is removed from or vacates his office, the official receiver may be appointed by the Court to complete the administration of the estate, or the Court may direct the official receiver to convene a meeting of the creditors in the estate to enable them to appoint a registered trustee to complete the administration of the estate.

2. **Bankruptcy Proceedings.**—The following table shows the number of bankruptcies of the various types in each State, together with the assets and liabilities of the debtors, during the twelve months ended 30th June, 1959:—

BANKRUPTCY PROCEEDINGS, 1958-59.

State.		Sequestration Orders and Orders for Administration of Deceased Debtors' Estates.	Compositions and Schemes under Part XI.	Deeds under Part XI.	Deeds of Arrangement, Part XII.	Total.
N.S.W.	Number ..	654	4	2	85	745
	Liabilities £	1,683,826	19,386	6,056	974,652	2,683,920
	Assets £	751,643	8,420	3,050	898,461	1,661,574
(a)	Number ..	305	1	..	88	394
	Liabilities £	1,015,834	19,261	..	678,644	1,713,739
	Assets £	412,465	11,575	..	528,651	952,691
Vic. ..	Number ..	180	..	..	20	200
	Liabilities £	654,611	..	..	177,961	832,572
	Assets £	509,276	..	..	147,481	656,757
Q'land	Number ..	268	40	8	..	316
	Liabilities £	530,178	146,450	30,853	..	707,481
	Assets £	225,847	123,042	22,599	..	371,488
S. Aust.	Number ..	111	86	9	..	206
	Liabilities £	472,900	422,943	161,821	..	1,057,664
	Assets £	100,888	554,377	120,063	..	775,328
W. Aust.	Number ..	85	..	..	3	88
	Liabilities £	177,130	..	..	13,255	190,385
	Assets £	89,723	..	..	20,113	109,836
Tas. ..	Number ..	..	..	..	..	..
	Liabilities £	..	..	..	..	..
	Assets £	..	..	..	..	..
N.T. ..	Number ..	1,603	131	19	196	1,949
	Liabilities £	4,534,479	608,040	198,730	1,844,512	7,185,761
	Assets £	2,089,842	697,414	145,712	1,594,706	4,527,674
Australia						

(a) Includes the Australian Capital Territory.

For purposes of comparison, the two tables which follow show Australian figures in respect of each of the various types of bankruptcy, and State figures in respect of all types of bankruptcy for the past five years.

Until 1954-55, the bankruptcy year ended on the 31st July. Thereafter it has ended on the 30th June. Figures for 1955-56, therefore, cover only eleven months.

BANKRUPTCY PROCEEDINGS: AUSTRALIA.

Year.		Sequestration Orders and Orders for Administra- tion of Deceased Debtors' Estates.	Compositions and Schemes under Part XI.	Deeds under Part XI.	Deeds of Arrangement, Part XII.	Total.
1954-55	Number ..	769	66	19	123	977
	Liabilities £	1,724,252	284,027	145,003	1,013,150	3,166,432
	Assets £	946,761	268,729	113,995	728,232	2,057,717
1955-56 (a)	Number ..	798	80	14	120	1,012
	Liabilities £	2,167,986	541,666	110,541	832,635	3,652,828
	Assets £	1,082,492	459,242	81,000	856,009	2,478,743
1956-57	Number ..	1,200	126	32	171	1,529
	Liabilities £	3,243,749	501,486	126,140	1,242,834	5,114,209
	Assets £	1,795,830	545,275	126,063	1,196,604	3,663,772
1957-58	Number ..	1,357	120	28	164	1,669
	Liabilities £	3,126,313	707,134	166,367	1,271,353	5,271,167
	Assets £	1,680,868	636,032	107,675	1,315,856	3,740,431
1958-59	Number ..	1,603	131	19	196	1,949
	Liabilities £	4,534,479	608,040	198,730	1,844,512	7,185,761
	Assets £	2,089,842	697,414	145,712	1,594,706	4,527,674

(a) Eleven months.

BANKRUPTCY PROCEEDINGS, STATES.

Year.		N.S.W. (a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
1954-55 ..	Number ..	360	200	155	111	100	49	2	977
	Liabilities £	1,162,001	764,083	461,874	338,481	315,157	121,198	3,638	3,166,432
	Assets £	789,226	365,151	338,287	241,597	237,192	78,851	7,413	2,057,717
1955-56 .. (b)	Number ..	400	206	153	99	120	33	1	1,012
	Liabilities £	1,644,478	712,223	361,636	441,626	373,119	114,159	5,587	3,652,828
	Assets £	1,092,323	522,159	151,954	342,790	276,246	92,642	629	2,478,743
1956-57 ..	Number ..	555	335	152	214	204	66	3	1,529
	Liabilities £	2,262,611	992,246	449,519	598,090	562,808	220,155	28,780	5,114,209
	Assets £	1,441,731	661,268	394,898	352,916	608,424	181,939	22,596	3,663,772
1957-58 ..	Number ..	524	418	181	263	212	70	1	1,669
	Liabilities £	2,010,218	1,021,428	607,109	645,401	793,439	184,552	9,020	5,271,167
	Assets £	1,607,587	676,021	377,379	375,932	578,097	120,778	4,637	3,740,431
1958-59 ..	Number ..	745	394	200	316	206	88	..	1,949
	Liabilities £	2,683,920	1,713,739	832,572	707,481	1,057,664	190,385	..	7,185,761
	Assets £	1,661,574	952,691	656,757	371,488	775,328	109,836	..	4,527,674

(a) Includes the Australian Capital Territory.

(b) Eleven months.

D. OTHER CIVIL PROCEEDINGS.

The following table shows the civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1958. The particulars given below include the number and amount of judgments entered by default or confession, or agreement, and differ from those in previous issues of the Official Year Book, which related in most States only to cases tried during the year.

CIVIL CASES AT HIGHER COURTS, 1958.

Particulars.	N.S.W. (a)	Vic.	Q'land. (b)	S. Aust.	W. Aust. (c)	Tas.	N.T. (b)	A.C.T.	Aus- tralia.
Judgments No.	3,400	10,475	980	163	275	521	(d)	62	(d)
Amount Awarded £	(d)	2,648,115	395,084	223,635	301,986	305,761	(d)	43,140	(d)

(a) Excludes judgments signed in the Supreme Court.

(b) Twelve months ended 30th June, 1958.

(c) Judgments signed and entered.

(d) Not available.

§ 5. High Court of Australia.

Under the provisions of Section 71 of the Commonwealth Constitution, the judicial power of the Commonwealth is vested in a Supreme Court called the High Court of Australia and in such other courts as the Parliament creates or invests with Federal jurisdiction. The High Court of Australia possesses both original and appellate jurisdiction. The powers of the Court are defined in the Commonwealth Constitution, and in the Judiciary Act 1903-55. The Court consists of a Chief Justice and six other judges. Sittings of the Court are held in the capitals of the various States as occasion requires. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for 1958 and 1959:—

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA.

Original Jurisdiction. (a)	1958.	1959.	Appellate Jurisdiction.	1958.	1959.
Number of writs issued	196	156	Number of appeals set down for hearing ..	99	119
Number of cases entered for trial ..	48	31	Number allowed ..	25	41
Judgments for plaintiffs	29	41	Number dismissed ..	46	59
Judgments for defendants	2	5	Otherwise disposed of	21	16
Otherwise disposed of ..	16	12			
Amount of judgments ..	£57,589	£122,970			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as cases.

During 1958 and 1959, respectively, the High Court dealt also with the following: Appeals from Assessments under the Taxation Assessment Act, 25, 30; Special cases stated for the opinion of the Full Court, 19, 8; Applications for Prohibition, etc., 41, 26. The fees collected amounted to £3,201 in 1958 and £3,349 in 1959.

§ 6. Police, Prisons and Prisoners.

1. **Police.**—The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens and inspectors under the fisheries and various other acts. In metropolitan and large country areas, they also regulate the street traffic. With the exception of a small body of Commonwealth police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State governments, but their members perform certain functions for the Commonwealth government, such as acting as aliens registration officers and policing various acts and regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings, and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force in each State and Territory and the number of police officers per 10,000 of population are shown in the following tables for the years 1954 to 1958. The figures include traffic police, probationers, cadets, special constables and women police, but exclude parking police, native trackers (natives employed in outlying districts in tracking lost persons and persons wanted by the police), female searchers, wardresses and interpreters. Figures refer to the 30th June, except where otherwise indicated.

STRENGTH OF POLICE FORCES.

As at 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
1954	(a)4,610	(a)3,021	2,403	1,107	936	438	56	62	12,633
1955	(a)4,817	(a)3,109	2,355	1,086	964	471	62	60	12,924
1956	(a)4,927	(a)3,392	2,422	1,132	971	481	67	60	13,452
1957	(a)5,043	(a)3,709	2,491	1,234	970	507	80	60	14,094
1958	5,130	3,753	2,617	1,351	988	526	76	66	14,507

(a) Figures refer to 31st December of the year shown.

The following table shows the population of each State and Territory to each police officer for the years 1954 to 1958.

POPULATION TO EACH POLICE OFFICER.

As at 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
1954	(a) 751	(a) 821	549	720	684	705	294	502	720
1955	(a) 732	(a) 813	571	744	683	668	284	558	721
1956	(a) 728	(a) 776	566	738	698	665	273	602	706
1957	(a) 726	(a) 728	561	708	713	647	240	652	689
1958	726	750	542	664	714	638	258	624	683

(a) Figures refer to 31st December of the year shown.

The following table shows the number of women police in each State and Territory for the years 1954 to 1958. As has been stated above, the figures are included in the table showing the strength of the police forces.

NUMBER OF POLICEWOMEN.

As at 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
1954	(a) 37	(a) 30	9	20	9	5	..	3	113
1955	(a) 37	(a) 34	8	20	9	5	..	2	115
1956	(a) 36	(a) 43	7	23	9	8	..	2	128
1957	(a) 38	(a) 55	7	24	9	10	..	2	145
1958	46	52	9	32	11	9	..	2	161

(a) Figures refer to 31st December of the year shown.

The following table shows the number of native trackers in each State and Territory for the years 1954 to 1958. As has been stated above, these figures are not included in the table showing the strength of the police forces. There are no native trackers in Tasmania, where the aboriginal race is extinct, nor in the Australian Capital Territory.

NUMBER OF NATIVE TRACKERS.

As at 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
1954	(a) 7	(a) 1	24	..	18	..	28	..	78
1955	(a) 8	(a) 1	23	..	18	..	29	..	79
1956	(a) 8	(a) 1	25	(b)	7	..	31	..	72
1957	(a) 8	(a) 1	23	(b)	3	..	30	..	65
1958	7	1	23	(b)	4	..	31	..	66

(a) Figures refer to 31st December of year shown. (b) One native tracker, who is paid a small weekly retainer and is supplied with rations, is continually on call.

2. Prisons and Prison Accommodation.—The table below shows the number of prisons in each State and the accommodation therein in 1958. All figures refer to 30th June, except where otherwise indicated.

PRISONS AND PRISON ACCOMMODATION, 1958.

Particulars.	N.S.W.	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
Prisons	17	11	7	16	19	1	2	73
Accommodation ..	2,568	1,945	849	859	876	206	59	7,362

(a) 31st December.

There is no gaol in the Australian Capital Territory, but there is a lock-up consisting of five cells attached to the police station at Canberra, and another lock-up at Jervis Bay, where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by a Magistrate's Court.

3. **Convicted Prisoners.**—The number of convicted prisoners at 30th June of each of the years 1954 to 1958 and the proportion per 10,000 of the population are shown in the following table. The figures exclude aborigines, except for New South Wales and Victoria.

CONVICTED PRISONERS.

At 30th June—	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
NUMBER.								
1954	2,155	1,108	606	(b) 377	360	152	47	4,805
1955	2,238	1,229	580	413	386	163	50	5,059
1956	2,860	1,462	612	457	482	149	21	6,043
1957	3,050	1,441	680	569	488	162	29	6,419
1958	3,126	1,397	799	526	527	196	32	6,603
NUMBER PER 10,000 OF POPULATION.								
1954	6.2	4.5	4.6	(b) 4.7	5.6	4.9	28.5	5.3
1955	6.4	4.8	4.3	5.0	5.7	5.2	28.4	5.5
1956	8.0	5.6	4.5	5.4	7.1	4.7	11.5	6.4
1957	8.3	5.3	4.9	6.6	7.1	5.0	15.8	6.6
1958	8.4	5.0	5.6	5.9	7.5	5.8	16.3	6.7

(a) Includes the Australian Capital Territory.

(b) At 31st December of year shown.

§ 7. Cost of Administration of Law and Order.

1. **Expenditure by the States.**—The tables below show the net expenditure (i.e., gross expenditure less receipts from fees, fines, recoup for services rendered, etc.) from Consolidated Revenue during 1958–59 in connexion with the administration of justice, police and prisons in each State.

In South Australia, the receipts for legal fees and registrations exceed the expenditure under "Justice". Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

NET EXPENDITURE ON LAW AND ORDER, 1958-59.

State.	Net Expenditure.			Per Head of Population.		
	Justice.	Police.	Prisons.	Justice.	Police.	Prisons.
	£.	£.	£.	s. d.	s. d.	s. d.
New South Wales ..	1,109,088	7,167,949	1,171,226	5 11	38 6	6 4
Victoria	738,761	6,013,721	843,689	5 4	43 4	6 1
Queensland	124,217	3,771,534	307,286	1 9	52 11	4 4
South Australia ..	—133,940	1,898,703	315,544	—2 11	41 10	6 11
Western Australia ..	22,740	1,614,273	264,903	0 8	45 4	7 5
Tasmania	187,275	762,696	132,552	11 0	44 9	7 10
Total	2,048,141	21,228,876	3,035,200	4 2	43 0	6 2

2. **Commonwealth Expenditure.**—(i) *Police and Prisons.* The expenditure shown in the previous table is that incurred by the State Governments. Expenditure by the Commonwealth Government on police in the Australian Capital Territory and police and prisons in the Northern Territory is shown in the following table.

EXPENDITURE ON POLICE AND PRISONS IN THE NORTHERN TERRITORY AND THE AUSTRALIAN CAPITAL TERRITORY.

(£.)

Year.					Northern Territory.	Australian Capital Territory.(a)
1954-55	..	..	..	..	135,738	87,126
1955-56	..	..	..	..	145,387	98,720
1956-57	..	..	..	..	136,000	109,710
1957-58	..	..	..	..	208,099	142,462
1958-59	..	..	..	..	227,031	137,894

(a) Expenditure on police only. There is no prison in the Australian Capital Territory.

(ii) *Attorney-General's Department.* Expenditure by the Commonwealth Attorney-General's Department throughout Australia is shown in the two tables which follow:—

EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT.

(£.)

Year.					Gross Expenditure.	Receipts.	Net Expenditure.
1954-55	..	..	..	..	1,715,945	370,759	1,345,186
1955-56	..	..	..	..	1,896,741	407,474	1,489,267
1956-57	..	..	..	..	1,952,184	451,758	1,500,426
1957-58	..	..	..	..	1,984,776	516,090	1,468,686
1958-59	..	..	..	..	2,100,388	572,771	1,527,617

EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT, 1958-59.

Item.					Gross Expenditure. £.
Administration	..	..	..	..	281,231
Bankruptcy	..	..	..	..	180,105
Commonwealth Investigation Service	..	..	..	..	123,570
Industrial Registrars' Branch	..	..	..	..	167,785
Court Reporting Branch	..	..	..	..	112,178
Crown Solicitor's Office	..	..	..	..	343,528
High Court	..	..	..	..	130,654
Industrial Court	..	..	..	..	77,747
Judges' Salaries and Pensions	..	..	..	..	16,009
Legal Service Bureau	..	..	..	..	60,384
Miscellaneous Services	..	..	..	..	16,642
Patents, Trade Marks and Designs	..	..	..	..	413,735
Peace Officer Guard	..	..	..	..	99,741
Public Service Arbitrator's Office	..	..	..	..	4,984
Rent	..	..	..	..	62,350
Repairs and Maintenance	..	..	..	..	9,745
Total	..	..	..	..	2,100,388

In addition £244,323 was spent by the Attorney-General's Department on capital works and services.

(iii) *Receipts of Commonwealth Attorney-General's Department.*—The above items of expenditure are gross. Revenue received by the Commonwealth Attorney-General's Department, which offsets this expenditure to some extent, is shown in the following table:—

**RECEIPTS OF THE COMMONWEALTH ATTORNEY-GENERAL'S
DEPARTMENT, 1958-59.**

Item.	Amount. (£.)
Bankruptcy	98,229
Court Reporting Branch :. . . .	72,762
Fees, Fines and Costs of Court	43,455
Patents, Trade Marks and Designs, Copyright	351,185
Miscellaneous	7,140
Total	572,771

CHAPTER XVII.

PUBLIC HEALTH.

A. STATE GOVERNMENT ACTIVITIES

(including activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory).

§ 1. Public Health Legislation and Administration.

1. **New South Wales.**—The Department of Public Health comes under the jurisdiction of the Minister for Health, with an Under-Secretary as Permanent Head of the Department for administrative purposes.

There is also a Director-General of Public Health and Chief Medical Adviser to the Government, who is *ex officio* President of the Board of Health and Chairman of the Nurses' Registration Board.

The Director of State Psychiatric Services is responsible for the administration of that part of the Mental Health Act relating to the care and treatment of mental patients.

The Department's activities embrace all matters relating to public health and the greater part of the general medical work of the Government. These include:—*(a)* Supervision of the work of local authorities (municipal and shire councils) in relation to public health matters connected with the following Acts—Public Health Act, Noxious Trades Act and Pure Food Act; *(b)* Scientific divisions (Government Analyst, Microbiological Laboratory, and Division of Occupational Health); *(c)* Tuberculosis and Social Hygiene Divisions; *(d)* Medical Officers of Health at Sydney, Broken Hill, Newcastle, Wollongong, Bathurst and Lismore; *(e)* State hospitals and homes and State sanatoria; *(f)* Mental hospitals; *(g)* Public hospitals (Hospitals Commission); *(h)* Maternal and baby welfare (Baby health centres); *(i)* School medical and dental services; and *(j)* Publicity, nutrition and library services.

2. **Victoria.**—The Department of Health, which is constituted under the Health Act 1958, contains, in addition to the central administration, four branches, the General Health Branch, the Maternal and Child Hygiene Branch, the Tuberculosis Branch and the Mental Hygiene Branch. The work of these branches is described below.

(a) The General Health Branch. The branch, which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways:—

The Engineering Division scrutinizes from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of stream pollution and supervision of abattoirs and cattle sale yards.

The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunization campaign being undertaken in Victoria. Through the municipalities, immunization against poliomyelitis, diphtheria, smallpox, whooping cough, and tetanus is encouraged and supervised.

Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria.

The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment.

Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors.

Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases and research into the effects of toxic substances used in industry are conducted by the Industrial Health Division.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services.

Other services operated by the Branch are: registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water and sewerage effluents; registering cinematograph operators; administering the Cemeteries Acts and the Clean Air Act; and advising industry on health hazards associated with handling radioactive substances.

(b) *The Maternal and Child Hygiene Branch.* This branch is concerned with pre-natal hygiene, the development of pre-school services, and the school medical and dental services.

(c) *The Tuberculosis Branch.* The Tuberculosis Branch is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients.

(d) *The Mental Hygiene Branch.*—This Branch is controlled by the Mental Hygiene Authority and consists of institutions for in-patient care and out-patient's clinics and other services necessary for a comprehensive community mental health programme. Since the appointment of the Authority in 1951, existing buildings have been remodelled and new ones provided. Services have been re-organized to conform with modern requirements.

(e) *The Cancer Institute.*—This Institute, which was incorporated in 1948, provides, *inter alia*, facilities for research and investigation related to the causes, prevention, diagnosis and treatment of cancer and allied conditions. The policy of the Cancer Institute Board has been to ensure the provision of maximum clinical service to patients and to carry out related research. Clinics have been opened in a number of country centres in co-operation with the local hospital committees.

Under an agreement with the Government of Tasmania, clinics are also conducted at Launceston and Hobart.

A 4 mega-volt linear accelerator was installed in Melbourne in 1956 and a Cobalt 60 unit in Launceston in 1957. Another 4 mega-volt linear accelerator is to be installed in Melbourne in late 1960. Out-patient attendances during the twelve months ended 30th June, 1959, were 32,297, and X-ray therapy treatments administered totalled 83,142. One hundred in-patient beds are now available.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1955 are administered by the Director-General of Health and Medical Services subject to the Minister for Health and Home Affairs. A central staff controls the following divisions:—

(a) *Division of Public Health Supervision.* This Division is controlled by the Deputy Director-General of Health and Medical Services and comprises separate sections of communicable disease control, environmental sanitation, food and drug control, enthetic (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane, and at any public hospital. Free immunization against poliomyelitis, diphtheria, whooping cough and tetanus is offered by most of the local authorities. About 94 per cent. of school children in the Greater Brisbane area and 90 per cent. in the rest of the State have been immunized against diphtheria, while 86 per cent. of the population aged under 15 years have been immunized against poliomyelitis.

(b) *Division of Tuberculosis.* A central chest clinic in Brisbane offers Mantoux tests, X-ray examinations, and inoculations of Mantoux negative reactors free of charge and this service is extensively used. Mobile X-ray units visit country districts. Children in the final grade of primary schools are now being Mantoux-tested and given B.C.G. vaccine. The compulsory X-ray examination of all persons over the age of 14 years has commenced in Northern Queensland and will be applied progressively to other areas of the State.

(c) *Division of Industrial Medicine.* The services of this division are available both to industry and the trade union movement for the prevention of industrial hazards. This division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning and advises on industrial problems such as lighting, ventilation, fatigue, air pollution and the use of radio-active isotopes.

(d) *Division of Maternal and Child Welfare.* This Division offers supervision and advice on the rearing and health of infants and pre-school children at 242 baby health centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

(e) *Division of School Health Services.* This Division comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. Every child has a medical examination at least once in three years.

(f) *Division of Mental Hygiene.* The Director is responsible for the care and treatment of mentally sick patients in the State's four mental hospitals at Brisbane, Toowoomba, Ipswich and Charters Towers.

(g) *Division of Laboratory Services.* Two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—are maintained to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to institutions, country hospitals and private doctors.

(ii) *Hospitals.* All public hospitals operate under the district system, which provides for the constitution of hospitals regions and hospitals districts and a hospitals board for each district. The State is divided into 11 hospitals regions with a base hospital for each region. Each region comprises a number of hospital districts, the purpose of the regional scheme being to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospital services, including public dental services, in each hospitals district is vested in the hospitals board, which comprises not less than four members nor more than eight members appointed by the Governor-in-Council and one member elected by the component local authorities. There are 57 hospitals boards controlling 132 public hospitals. In addition five other hospitals provide public accommodation and receive aid from the Government.

An institution for the treatment of Hansen's disease in aboriginals is maintained at Fantome Island near Townsville. Modern therapy has rendered the Peel Island institution unnecessary and white patients are now treated at the South Brisbane Hospital.

Private hospitals in Queensland are controlled under the provisions of the Health Acts, 1937 to 1955 and the Private Hospitals Regulations, 1937. There are 58 private hospitals licensed in the State, containing 1,739 beds and cots, of which 20 containing 778 beds and cots, are in Brisbane.

4. *South Australia.*—The Department of Public Health embraces the activities of the Central Board of Health, the Food Drugs Advisory Committee, the Radiological Advisory Committee, the School Health Services (comprising School Medical and Dental Services and Deafness Guidance Clinic), Poliomyelitis Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey, under the control of the Director of Tuberculosis.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor, while one is elected by metropolitan local boards and one by all other local boards. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registrations and Early Notification of Birth Acts. The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation. Other legislation administered by the Department of Public Health relates to venereal diseases and vaccination.

The Health Act 1935–1956 constitutes every municipal council and every district council a local board of health for its municipality or district. There are 143 local boards under the general control and supervision of the Central Board. Under the Food and Drugs Act, each local board is constituted the local authority for its respective district except in the metropolitan area, for which the Metropolitan County Board is the local authority.

5. *Western Australia.*—Health services are provided under the Health Act 1911–1958. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is divided into 147 local government areas which are administered either by municipal councils or by road boards. Each type of authority has health administration powers.

In any emergency, the Commissioner may exercise all the powers of a health authority in any part of the State.

Features of recent legislation are as follows:—(a) Act No. 70 of 1948 gives power to control sufferers from tuberculosis and established a Tuberculosis Control Branch; (b) Act No. 11 of 1952 gives wide powers to regulate the sale and use of pesticides; (c) Act No. 34 of 1954 provides for the licensing of manufacturers of therapeutic substances; (d) Act No. 21 of 1957 gives power to require the notification of any prescribed condition of health in addition to infectious diseases; (e) Act No. 17 of 1956 gives local authorities power to provide or subsidize centres for the accommodation and care of the aged; (f) Act No. 30 of 1958 provides for the establishment of the Health Education Council with the object of promoting and improving the health of the people of Western Australia; and (g) Act No. 43 of 1958 provides for the establishment of the Cancer Council of Western Australia with the objects of co-ordinating, promoting and subsidizing cancer research.

6. *Tasmania*.—The Department of Health Services is under the jurisdiction of the Minister of Health. The Department consists of a Headquarters and three Divisions. The Director-General of Health Services is the permanent head of the Department and he administers the Department through Directors of each of the three divisions (Division of Public Health, Division of Mental Health, and Division of Tuberculosis) and through several other clinical directors and other senior officers attached to the Headquarters of the Department including the Directors of Orthopaedics, Pathology and Anaesthetics and the Government Analyst and Chemist.

In addition to his responsibility for the functioning of the Department as a whole, the Director-General of Health Services directly administers the various branches of the work performed by Headquarters. This is concerned particularly with the following:—

- (a) The Administration of the Hospital Services throughout the State.
- (b) The Government Medical Service.
- (c) The Hospital and Government Nursing Service, which includes the administration of 27 District Nursing Centres throughout the State.
- (d) Legislation concerned with Health and allied matters and the Nurses' Registration Board.
- (e) The Health Education Council and National Fitness Council.
- (f) Specialist Medical Services.
- (g) Statistical classification of Diseases and Injuries.
- (h) Liaison with other States and the Commonwealth Health Department, and all matters dealing with the maintenance of Departmental property and the appointments and salaries of Departmental staff.

The Division of Public Health administers laws relating to sanitation, notification of infectious diseases, and food and drug legislation. The Division also controls the school medical and dental services and child health services.

The Division of Mental Health is responsible for the supervision of mental hospitals, the consultative diagnosis and treatment of psychiatric cases, the treatment and care of the mentally ill, the treatment and care of inebriates, the treatment and custody of sexual offenders, the treatment of psychopathic cases, and the care and treatment of retarded children. The Tuberculosis Division is concerned with the prevention (including B.C.G. vaccination), detection, notification, examination and treatment of all forms of tuberculosis occurring in the State. This Division also conducts the compulsory mass chest-X-ray examinations and maintains chest hospitals and diagnostic clinics.

7. *Northern Territory*.—The Commonwealth Department of Health provides hospital, health and medical services in the Northern Territory.

Four general hospitals have been established. The Darwin Hospital has accommodation for 235 in-patients, Alice Springs Hospital, 120, Katherine Hospital, 36, and Tennant Creek Hospital, 34. The treatment of Hansen's disease (leprosy) is carried out at East Arm Settlement. A full range of ancillary services is available at the Darwin hospital which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. Aircraft used in the Territory are two De Havilland Doves stationed at Darwin, and one Drovcr at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively

used in ambulance and survey medical work. At Alice Springs, doctors of the Northern Territory provide the medical services to the Royal Flying Doctor Service (South Australian) base.

A section of the Department of Health undertakes continuous investigation into native health.

School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment. Public health services are provided and health inspectors periodically visit all settlements.

Darwin, as a first port of entry for oversea aircraft and shipping, has a quarantine station.

8. Australian Capital Territory.—The Public Health Ordinance 1928–1951 places under the control of the Minister for Health all matters relating to public health and hygiene in the Australian Capital Territory. A Medical Officer of Health and a number of Health Inspectors are appointed to administer and police this ordinance. The Canberra Community Hospital is administered subject to the Minister for Health by a board consisting of five elected members and three members appointed by the Minister. The hospital has accommodation for 253 in-patients. A district nursing service administered by the Commonwealth Department of Health was established in 1950 to provide a home-nursing service for the sick and aged. The service is available at the request of a registered doctor.

§ 2. Supervision and Care of Infant Life.

1. General.—The number of infant deaths and the rate of infant mortality for the five years 1954 to 1958 are given in the following table. Further information regarding infant mortality (including information for each State as a whole and for the Territories) will be found in Chapter X.—Vital Statistics (*see* p. 356).

INFANT DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1954.	1955.	1956.	1957.	1958.	1954.	1955.	1956.	1957.	1958.

NUMBER OF INFANT DEATHS.

New South Wales	787	814	784	795	792	1,063	1,036	993	1,009	912
Victoria ..	576	549	630	703	718	479	486	498	516	460
Queensland ..	206	210	224	224	209	489	446	513	508	448
South Australia ..	199	207	193	202	241	189	224	184	201	208
Western Australia	153	187	156	168	167	206	186	228	189	193
Tasmania ..	58	55	53	51	63	128	134	117	119	104
Total(a) ..	1,979	2,022	2,040	2,143	2,190	2,554	2,512	2,533	2,542	2,325

RATE OF INFANT MORTALITY.(b)

New South Wales	22.51	22.76	21.33	20.40	20.03	27.85	26.81	25.49	24.92	22.52
Victoria ..	18.26	16.68	18.13	19.39	19.41	20.72	20.75	21.07	21.32	18.95
Queensland ..	18.95	18.60	19.93	18.88	17.83	24.08	21.17	24.23	23.20	20.23
South Australia ..	19.82	20.13	18.47	18.85	21.62	23.08	27.27	21.61	22.79	23.37
Western Australia	19.59	22.50	17.89	19.63	18.44	25.37	22.37	27.82	22.59	24.75
Tasmania ..	25.45	23.10	22.18	19.97	24.51	23.31	23.48	20.48	20.23	17.34
Total(a) ..	20.30	20.03	19.56	19.68	19.81	24.70	23.84	23.85	23.18	21.14

(a) Excludes Territories.

(b) Number of deaths of children under one year of age per 1,000

live births registered.

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government and private organizations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by baby health centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out of the wards of the State to suitable persons and wherever possible the child is boarded out to

its mother or to a near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children.

Under the provisions of Part V. of the Social Services Act 1947–1959, a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under 16 years of age. Where there are one or two other children under 16 the amount payable is £16, and where there are three or more other children under 16 the amount payable is £17 10s. Where more than one child is born at a birth the amount of the allowance is increased by £5 in respect of each additional child born at that birth. More detailed information concerning maternity allowances is given in Chapter XVIII.—Welfare Services.

2. **Nursing Activities.**—(i) *General.* In several of the States, the Government maintains institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Official Year Book (*see* No. 22, pp. 515–16) information concerning the activities of institutions in each State is given.

(iii) *Summary.* The following table gives particulars of the activities of Baby Health Centres and Bush Nursing Associations for the year 1959.

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1959.

Heading.	N.S.W.	Vic.	Qld. (a)	S. Aust. (a)	W.Aust.	Tas.	N.T.	A.C.T. (a)	Aus- tralia.
Baby Health Centres— Metropolitan No.	111	173	68	93	31	18	..	9	503
Urban-Provincial and Rural No.	247 (b)	427	174	139	29	72	2	..	1,090
Total No.	358	600	242	232	60	90	2	9	1,593
Attendances at Centres No.	1,015,018	1,331,403	463,499	232,213	229,431	133,855	7,583	30,806	3,443,808
Visits paid by Nurses No.	(c)	151,174	29,921	25,629	22,216	75,742	1,850	3,843	(c)
Bush Nursing Associa- tions—Number of Centres	24	58	7	30	12	25	..	..	156

(a) Year ended 30th June.
available.

(b) Includes 7 mobile units which served 21 centres.

(c) Not

In the last thirty years, the number of attendances at the Baby Health Centres has more than trebled. The numbers of attendances, at five-year intervals, since 1930 were as follows:—1930, 919,893; 1935, 1,355,306; 1940, 2,035,299; 1945, 2,927,764; 1950, 3,049,375; and 1955, 3,099,233. During the year 1959, the number of attendances was 3,443,808.

§ 3. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all States, in the Northern Territory and in the Australian Capital Territory. In some States, travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—(i) *School Medical Service.* Doctors of the School Medical Service examine children attending all schools administered by the Department of Education and the majority of other schools in the State. They make annual visits to schools in the metropolitan, Newcastle and Wollongong areas, and in Armidale, Tamworth, Bathurst, Orange and Wagga, and examine children in kindergarten or 1st grade in primary schools and 1st and 4th years in secondary schools. Children in other classes are examined or reviewed as necessary. The vision and hearing of pupils in 4th grade are re-tested. In country areas, doctors aim to visit schools every three years, and examine all children attending. Owing to insufficient staff, the country portion of the programme cannot be completed each year.

If treatment is necessary, the parent is informed in writing and, if possible, is called in for interview. In the metropolitan, Newcastle and Wollongong areas, school nurses follow up these cases with the object of persuading parents to seek medical advice for the children.

As well as examining school children, the medical officer examines the sanitary arrangements at each school. Bush nurses act as school nurses in schools at or near the bush nursing centres.

Medical officers of this service examined 152,620 children in 1958. Notifiable defects were found in 25.2 per cent. of the children examined.

Various surveys of school children are undertaken from time to time, e.g. hearing surveys, hookworm surveys, height-weight surveys, nutrition surveys, and investigations to determine the incidence of enlargement of the thyroid gland, defective vision, and postural defects.

Five child guidance clinics, all in the metropolitan area, operate under the administration of the School Medical Service. One clinic functions at the Yasmar Boys' Shelter and deals exclusively with cases which come before the Children's Courts. Each clinic is staffed by a psychiatrist, a psychologist and social workers.

(ii) *School Dental Service.* The aim of the School Dental Service is to provide dental treatment for children on the school premises, to train them in the care of their teeth, and to teach them the principles of dental health.

Of 35,007 children examined in 1958, 29,083 were included in a Dental Health Survey. Of these, 6.7 per cent. were found to have naturally healthy dentitions and 77 per cent. were in need of treatment.

In 1958, the clinics treated 16,055 children in 47,724 visits, 26,035 teeth were extracted, and 43,641 permanent fillings and 48,894 other treatments, including prophylaxis, were provided. As the number of clinics is not sufficient to provide more than a limited service, it is necessary to restrict treatment to the ages 6-8 years in the metropolitan area, and 6-9 years in large country centres. In small outlying rural schools, children of all ages are included.

3. *Victoria.*—School Medical Services are conducted in close association with the Education Department. All children between the ages of 5 and 14 years attending State and registered primary schools are examined regularly, and any disabilities found in the children are brought to the notice of their parents. School nurses, under medical direction, visit the homes and schools. Children suffering from physical and mental disabilities are recommended to attend appropriate schools or classes by the medical officers. Some special training for the handicapped is given.

The School Dental Service has a staff of 43 dental officers and provides dental attention for children in parts of the metropolitan area at one of three dental centres and for a number of country districts by means of 15 mobile units. It also provides dental service for children's institutions in and around Melbourne and certain provincial centres. This service is now providing dental attention for some 80,000 primary school children.

4. *Queensland.*—During 1958-59, medical officers and nurses examined 101,211 school children, referring children with defects to their own doctors. In western Queensland, local doctors act as part-time ophthalmic officers. In north Queensland, two school sisters assist in the control of hookworm. Advice is given on school sanitation, infectious diseases in schools, and health education.

During 1958-59, school dentists gave treatment to 9,511 school children whose parents could not afford private treatment. The treatment was carried out at four rail dental clinics and with portable equipment at schools. In addition, school children are treated at hospital dental clinics in the larger towns.

5. *South Australia.*—Children in State schools are examined while in Grades 1, 4 and 7 in the primary schools, and in their second and fourth years in secondary schools. Efforts are made to visit country schools every three years and all the children are examined. Students who wish to become teachers are examined on appointment as Leaving Teaching

Scholars while still attending secondary schools, again immediately prior to entering the Teachers' College and finally when they leave the College to take up teaching. Courses of lectures in hygiene and in first aid are given to all College students and, in addition, domestic arts students are lectured on home nursing.

During 1958, 58,808 children were examined by medical officers in 159 country and 101 metropolitan schools. Of these, 3,898 required treatment for defective vision, 1,234 for defective hearing, and 14,416 for dental disorders.

There were 996 children examined at the deafness guidance clinic during 1958. Of the 487 new patients, 370 were referred to doctors or hospitals for treatment.

Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

The Psychology Branch of the Education Department examines difficult children of many types, including those with such problems as backwardness, truancy and delinquency, and assists the parents of the children interviewed in handling these problems. In addition to supervising opportunity and special classes for children who are hard-of-hearing or backward in school work, it advises on questions of placement and types of education for ordinary children. Its guidance officers organize vocational guidance work in schools, interview pupils and visit schools. They also lecture to students of the Teachers' College as well as to other interested organizations such as mothers' clubs. Expenditure on the Psychology Branch during 1958 was £22,985.

6. Western Australia.—The School Medical Service of the State Health Department employs five full-time medical officers for schools. During 1958, these officers examined 37,569 children (metropolitan 23,151, country 14,418) of whom 19,431 were boys and 18,138 girls. The 257 schools visited comprised—metropolitan, 126 (state schools 94, convents 32), and country, 131 (state schools 109, convents 22). The aim is to examine each school child three times in his school career.

During 1958, the 15 full-time dentists employed by the School Dental Service visited 15 metropolitan schools, 157 country schools, 11 orphanages and 13 native missions. The number of children examined was 13,502. With the consent of their parents, 7,744 of these were treated. The number of dental vans operating was 12. The cost of this service for 1957–58 was £47,902.

7. Tasmania.—During 1958, one full-time and five part-time medical officers examined school children in State and private schools, and 13 full-time and 2 part-time sisters visited homes and schools. Of the 22,989 children examined by medical officers, 8,776 were found to have defects.

There are 20 school dental clinics. Surgeries are located at Hobart, Launceston, Queenstown, Burnie and Devonport, and 15 mobile clinics are operated in other districts. A full-time dental surgeon is in charge of each surgery or clinic. During the year, there were 18,054 new visits to the school dentists and 28,998 repeat visits.

The cost of school medical and school dental services for the year ended 30th June, 1958, was £79,967.

8. Northern Territory.—(i) *School Medical Service.* The Schools Medical Officer makes routine physical examinations of all children attending both pre-school centres and the schools which come under the supervision of the Assistant Supervisor of Education in the Northern Territory. The only children not examined by him are those at the Native Welfare Settlement School, i.e. full-blood aboriginals, who are examined during native health surveys.

An immunization clinic and a paediatric clinic are held each week at the Darwin Hospital.

(ii) *School Dental Service.* A special service for school and pre-school children is available in Darwin.

9. Australian Capital Territory.—The Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include a school medical service, carried out by a medical officer and a trained nurse, who are full time officers of the Health Department.

Routine examinations are carried out at all schools, public and private, within the Territory. The programme is planned to provide for examinations at the ages of six, eight, 12, 15 and 17 years. During 1959, the total number of children examined in the above age groups was 3,931.

Examinations of children attending Pre-School Centres are made according to the time available, an attempt being made to cover children aged 4½ to five years. In 1959, lack of time prevented full coverage but 154 pre-school children were examined.

In addition, an immunization programme for the protection of children aged from six months to 12 years against diphtheria, whooping cough and tetanus is carried out by the school doctor and nurse. Injections given during 1959 numbered 5,433.

The officer-in-charge of the school service also acts as medical adviser to the Mothercraft Council.

The school dental service is staffed by eight dentists and nine dental nurses, and has operated since 1950. Free dental treatment is available to children at primary and infants' schools and pre-school centres. Approximately 90 per cent. of children accept treatment. During 1959, 7,065 children were examined, involving 21,220 visits by these children.

§ 4. Inspection of Food and Drugs for Sale.

Public health legislation in force in all States provides for the inspection of foods and drugs with the object of ensuring that all goods sold shall be wholesome, clean, and free from contamination or adulteration, and that all receptacles, places and vehicles used for their manufacture, storage, or carriage shall be clean.

§ 5. Supervision of Dairies, Milk Supply, etc.

Earlier issues of the Official Year Book (*see* No. 22, p. 498), refer to the legislation in force in the various States to ensure the purity of dairy produce.

§ 6. Disposal of Dead by Cremation.

The first crematorium in Australia was opened in South Australia in 1903. At 31st December, 1959, there were seventeen crematoria in Australia, situated as follows:—

CREMATORIA, 31st DECEMBER, 1959.

New South Wales	..	..	..	..	..	7
Victoria	..	..	..	..	..	3
Queensland	..	..	..	..	..	2
South Australia	..	..	..	..	..	1
Western Australia	..	..	..	..	..	2
Tasmania	..	..	..	..	..	2
Australia	..	..	..	..	..	17

There is no crematorium in the Northern Territory or the Australian Capital Territory.

The following table shows the number of cremations in each State for each of the years 1955 to 1959:—

CREMATIONS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1955	11,128	6,119	2,993	431	1,169	549	22,389
1956	12,358	6,733	3,341	514	1,201	551	24,698
1957	12,189	6,849	3,250	539	1,239	688	24,754
1958	12,190	6,913	3,308	620	1,363	622	25,016
1959	13,352	7,549	3,678	779	1,433	666	27,457

B. COMMONWEALTH GOVERNMENT ACTIVITIES.**§ 1. General.**

At the time of federation, the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. All other health powers remained with the State Governments. Under this power, the systems of State quarantine formerly in operation were abolished with the passing of the Quarantine Act 1908 and a branch of the Department of Trade and Customs, under the control of a Director of Quarantine, was created on 1st July, 1909.

The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. It had certain other functions in the field of public health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

§ 2. National Health Benefits.

1. Pharmaceutical Benefits.—Prior to 1st March, 1960, certain life-saving and disease-preventing drugs were provided free of charge to the general community provided they had been prescribed by a doctor registered in Australia. These benefits, together with the drugs listed in the British Pharmacopoeia, were provided free to pensioners.

Total expenditure on pharmaceutical benefits in the year 1958–59 was £20,972,797.

As from 1st March, 1960, benefits previously available only to pensioners, with certain additions and deletions, are also available to the general community but a fee of 5s. per prescription has been imposed for each prescription both for the life-saving and the wider range of drugs.

As in the past, pensioners who benefit under the Pensioner Medical Service (*see* para. 5, page 663), will receive all benefits without any charge being made.

2. Hospital Benefits.—The payment of hospital benefits to the States is authorized under Part V. of the National Health Act 1953–1959. This Act continues the agreements entered into with the various States under the Hospital Benefits Act 1951. Under these agreements, the Commonwealth pays the States certain sums of money which vary according to the number of occupied beds in public hospitals and the status of patients.

The agreements provide for the payment of 12s. a day for patients who are pensioners or their dependants, and for patients in certain South Australian hospitals. The rate of 8s. a day is paid for other patients.

The National Health Act also provides for the payment of 8s. a day for patients in approved private hospitals. This payment is made to the proprietor of the private hospital. A condition of the benefit is that an equivalent amount has been allowed against the patient's account.

Commonwealth additional benefit is paid in the case of patients who are members of a registered hospital benefit organization. The additional benefit is payable at the rate of 4s. a day if a person contributes for a fund benefit of at least 6s. a day but less than 16s. a day, and at the rate of 12s. a day if a person contributes for a fund benefit of at least 16s. a day. Payment of the additional benefit is made through the benefit organization and the patient normally receives it with the amount of fund benefit payable by the organization. Reimbursement of the Commonwealth additional benefit is subsequently made to the organization by the Commonwealth.

Until 1st January, 1959, organizations' rules generally provided for disallowance of claims for fund benefit in cases of chronic or pre-existing ailments, or after the contributor had received benefit for a certain maximum period each year. As from 1st January, 1959, provision was made for fund benefit to be paid in these cases. The fund benefit generally

payable in such cases is 16s. a day and is paid either from special accounts guaranteed by the Commonwealth, or from the ordinary accounts of the organizations. One of the original conditions of payment was that the treatment was given in a hospital recognized for the purpose of paying this benefit. While this condition still remains as a general rule, provision has been made as from 1st January, 1960, for fund benefit to be paid in certain circumstances to particular cases for treatment in hospitals which are not recognized.

Australian residents and their dependants who receive hospital treatment while temporarily living overseas are eligible to receive the benefit of 8s. a day and the additional benefit to which they are entitled.

Expenditure on hospital benefits in 1958-59 was £14,802,290. This does not include expenditure on mental hospitals (*see* para. 3, below).

The following tables show the amount of ordinary benefit paid for each of the years 1956-57 to 1958-59 together with the number of registered organizations, the membership thereof, and payments of Commonwealth additional benefit and hospital fund benefit on account of occupied beds in public and approved private hospitals for the year 1958-59. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members. Reliable figures for coverage are not available.

HOSPITAL BENEFITS: SUMMARY 1956-57 to 1958-59.

1. Ordinary Benefits (a). Paid to Hospitals in respect of occupied beds.

(£.)

Year Ended 30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Territories and Overseas.	Aus- tralia.
1957	3,065,921	1,920,075	1,356,017	714,980	594,007	264,227	57,936	7,973,163
1958	2,832,282	2,024,597	1,415,169	735,079	644,149	276,378	63,498	7,991,152
1959	3,260,416	2,077,329	1,493,257	746,282	720,164	284,522	65,313	8,647,283

(a) Ordinary benefits are payable in respect of:—(i) Beds occupied by pensioners in public hospitals (12s. a day); (ii) Beds occupied in certain South Australian hospitals (12s. a day); and (iii) Other occupied beds in public hospitals and approved private hospitals (8s. a day).

2. Additional Benefits (a). Paid through Benefit Organizations.

YEAR ENDED 30TH JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(b)
Registered Organizations							
No.	29	48	3	14	12	10	116
Members	1,152,832	712,788	288,365	257,289	230,559	107,475	2,749,308
Commonwealth Benefit	3,091,444	1,348,723	478,711	478,495	565,493	192,141	6,155,007
Fund Benefit	£ 5,354,146	1,561,150	897,984	850,967	665,533	437,532	9,767,312

(a) An additional benefit of 4s. a day is payable to registered hospital benefit organizations for persons who contribute for a fund benefit of at least 6s. a day but less than 16s. a day, or 12s. a day for those who contribute for a fund benefit of at least 16s. a day.

(b) No hospital benefit organization is registered in the Northern Territory or the Australian Capital Territory. Persons who live in one of these territories, or who are overseas, receive their Commonwealth additional benefit and fund benefit through membership of an organization registered in one of the States.

3. Mental Hospitals.—In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals, the Commonwealth Parliament passed the Mental Institutions Benefits Act 1948. This Act ratified agreements with the States whereunder it was provided that:—

- (a) the Commonwealth would pay the States a benefit equal to the amount being collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance; and
- (b) the States would cease making charges for the maintenance of mental patients.

These agreements operated for five years, and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Hygiene Authority, was commissioned to undertake a survey on mental health facilities and needs in Australia. His report was released in May, 1955. The report stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required.

Following the report, the Commonwealth made an offer of £10 million to the States as part of a capital expenditure programme of £30 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer.

The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government each year from 1954–55 to 1958–59.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH GOVERNMENT.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1954–55 ..	106,525	53,820	36,460	15,871	9,453	3,457	225,586
1955–56 ..	208,763	445,747	66,588	12,245	9,984	29,822	773,149
1956–57 ..	383,555	527,213	88,068	128,467	51,855	68,974	1,248,132
1957–58 ..	324,151	545,365	114,104	152,159	29,236	91,384	1,256,399
1958–59 ..	196,831	619,585	118,512	122,328	17,210	45,892	1,120,358

Amounts shown in the foregoing table in respect of the year 1954–55 represent payments made under the Mental Institutions Benefits Act 1948. Amounts shown in respect of 1955–56 to 1958–59 represent payments made during the year shown under the States Grants (Mental Institutions) Act 1955. The total amounts payable to each State under the last-mentioned Act are as follows:—

	£
New South Wales	3,830,000
Victoria	2,740,000
Queensland	1,460,000
South Australia	895,000
Western Australia	720,000
Tasmania	355,000
Australia	10,000,000

There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

4. Medical Benefits.—A medical benefits scheme has operated since July, 1953, being authorized firstly by the National Health (Medical Benefits) Regulations and then by the National Health Act 1953.

The basic principle of the scheme is Commonwealth support of voluntary insurance towards meeting the costs of medical attention. The benefits payable by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the first and second schedules to the National Health Act, or in the form of a subsidy not exceeding half of the payments made to doctors by registered organizations under contract arrangements.

In order to qualify for the Commonwealth benefit, a person is required to be insured with a registered medical benefits organization. The organization pays the Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

Provision was made from 1st January, 1959, for payments of fund benefit in cases of pre-existing ailments and long-term illnesses.

Substantially increased Commonwealth and fund benefits were introduced for a number of medical services from 1st January, 1960. The largest increases were for major operations where the combined benefits were doubled.

An organization wishing to be registered by the Commonwealth for the purposes of the medical benefits scheme is required to provide to its contributors, subject to its rules, all benefits specified in the first schedule to the National Health Act 1953–59, at rates not less than those provided by the Commonwealth. The organization must be non-profit-making.

In 1958–59, Commonwealth expenditure on medical benefits was £7,779,451.

The following table shows the number of registered medical benefit organizations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organizations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors. Reliable figures for coverage are not available.

MEDICAL BENEFITS: SUMMARY, YEAR ENDED 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)
Registered Organizations							
Members No.	26	22	6	9	9	10	82
Medical Services No.	1,230,496	611,999	290,458	241,814	199,429	92,788	2,666,984
Commonwealth Benefit £	7,188,796	4,152,415	1,818,244	1,678,988	1,519,362	460,851	16,818,656
Fund Benefit £	3,383,799	1,872,049	824,123	795,859	699,802	203,819	7,779,451
	4,437,512	1,859,049	1,032,243	898,712	906,888	276,213	9,410,617

(a) No medical benefit organization is registered in the Northern Territory or the Australian Capital Territory. Persons who live in one of those territories, or who are overseas, receive their Commonwealth Benefit and fund benefit through membership of an organization registered in one of the States.

5. Pensioner Medical Service.—The Pensioner Medical Service, which commenced on 21st February, 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the National Health Services Act 1948–1949. The service has been continued under the provisions of the National Health Act 1953–1959.

The service provided to eligible pensioners consists of medicines provided free of cost and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

Persons eligible to receive the benefits of the service are those who satisfy a means test and are receiving an age, invalid or widow's pension under the Social Services Act or a service pension under the Repatriation Act; persons receiving a tuberculosis allowance under the Tuberculosis Act; and dependants of persons eligible for the service.

Since 1st November, 1955, the means test which has applied to new enrolments in the service is the income test that had to be satisfied in order to qualify for a full rate pension as at 31st December, 1953.

The means test does not apply to persons who had applied for and were eligible to receive a pension prior to 1st November, 1955, or to persons receiving a tuberculosis allowance.

At 30th June, 1959, 5,531 doctors were enrolled in the scheme to attend to approximately 720,053 pensioners and their dependants.

During the year ended 30th June, 1959, doctors in the scheme performed 6,441,121 services—visits and surgery consultations—for persons enrolled in the scheme. For these services, they were paid £3,806,457. The average number of services rendered by doctors to each person was nine.

6. Anti-Tuberculosis Campaign.—The main provisions of the Tuberculosis Act 1948 are as follows:—(a) Section 5 authorizes the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (b) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (c) Section 8 provides for the setting up of an advisory council to advise the Commonwealth Minister for Health on matters relating to the national campaign; and (d) Section 9 authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and their dependants.

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947–48. Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating and financial capacity. For this reason, the Commonwealth has not found it necessary to make much use of its powers under Section 6.

An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health. Other members are the Commonwealth Director of Tuberculosis, the six State Directors of Tuberculosis, the Consultant (Chest Diseases) of the Department of Repatriation, two specialist private practitioners, and the Chief Administrative Officer of the Commonwealth Department of Health.

To help reduce the spread of infection, the Commonwealth Government pays living allowances to persons suffering from tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13th July, 1950. Since 8th October, 1959, the rates payable have been:

Married sufferer with a dependent wife	£11 2s. 6d. a week.
Each dependent child under the age of sixteen years	10s. a week (additional to child endowment)
Sufferer without dependants	£6 17s. 6d. a week (reducible to £4 15s. a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, £7 a week, and in the case of a person without a dependent wife, £3 10s. a week.

The following table gives particulars of the number of new cases of tuberculosis notified in Australia for the year 1958–59 :—

TUBERCULOSIS: NEW CASES NOTIFIED, YEAR ENDED 30TH JUNE, 1959.

State or Territory.	Age Group.					Total.
	0–14.	15–34.	35–54.	55 and over.	Not Stated.	
New South Wales	48	297	444	385	4	1,178
Victoria	88	260	230	208	2	788
Queensland	87	151	258	279	17	792
South Australia	28	69	107	81	..	285
Western Australia	9	70	155	153	2	389
Tasmania	12	64	52	36	..	164
Northern Territory	5	25	8	8	..	46
Australian Capital Territory	1	1	5	3	..	10
Australia	278	937	1,259	1,153	25	3,652

The following table sets out expenditure by the Commonwealth Government during 1958-59 on its anti-tuberculosis campaign :—

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT, 1958-59.
(£.)

State or Territory.	Allowances.	Maintenance.	Capital.	Total.
New South Wales	363,863	1,789,097	371,624	2,524,584
Victoria	224,085	1,072,637	44,444	1,341,166
Queensland	206,185	800,142	664,213	1,670,540
South Australia	132,126	440,340	69,754	642,220
Western Australia	78,084	565,890	256,530	900,504
Tasmania	58,266	176,000	4,497	238,763
Northern Territory .. ..	..	..	..	..
Australian Capital Territory ..	..	..	..	..
Australia	1,062,609	4,844,106	1,411,062	7,317,777

The following table sets out expenditure by the Commonwealth Government on its anti-tuberculosis campaign since the start of the campaign.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT 1947-48 TO 1958-59.
(£.)

Year.	Allowances.	Maintenance.	Capital.	Total.
Total 1947-48 to 1953-54 ..	7,620,256	9,702,894	4,049,570	21,372,720
1954-55	1,904,467	3,752,856	1,709,405	7,366,728
1955-56	1,689,774	4,006,869	1,757,612	7,454,255
1956-57	1,460,651	4,754,765	2,381,210	8,596,626
1957-58	1,254,693	4,569,215	2,128,462	7,952,370
1958-59	1,062,609	4,844,106	1,411,062	7,317,777

7. Anti-Poliomyelitis Campaign.—The success of the 1954 United States field trials of the poliomyelitis vaccine developed by Dr. Jonas Salk and his associates at the University of Pittsburg was announced in April, 1955. The Commonwealth Government immediately decided to produce the anti-polio vaccine in Australia.

With the advantage of the experience of the campaigns in the United States and Canada, Australia has adopted a vaccine which has proved to be safe and effective in building up immunity against poliomyelitis.

The vaccine was being produced in Australia by the end of 1955 under the most rigid safety conditions. Plans were made for comprehensive testing procedures to be carried out at many stages both during the production process and with the finished product. These tests ensured the maintenance of safety standards no less rigid than those laid down in other countries where vaccination campaigns were in progress. The Research Laboratory at the Fairfield Hospital, Melbourne, agreed to act as an independent testing authority under an arrangement with the Commonwealth Government, and the pathology department of the University of Melbourne also agreed to conduct tests. No vaccine was released for use unless the searching requirements of the Commonwealth Serum Laboratories, the Fairfield Hospital, and the University of Melbourne were met.

The vaccine was supplied to the States free of charge and the States accepted responsibility for the cost of their particular vaccination programmes. No child can be vaccinated without the consent of his parents or guardian.

Distribution of the Salk poliomyelitis vaccine to the States began in July, 1956. The States are responsible for the organization and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. The first priority group consists of children in the 0-14 age group, expectant mothers, and persons subjected to special risk. These persons have been found to be the most vulnerable.

Vaccination against poliomyelitis takes the form of three injections of the vaccine. The second injection is given approximately four weeks after the first, and the third injection is given not less than 32 weeks after the first.

Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate as soon as possible all persons in the area who give their consent.

By 30th June, 1959, approximately 2,375,000 children had completed the course of injections and, in addition, approximately 404,000 children had commenced the course.

Campaigns for the mass immunization of adults were not commenced until early in 1958 because available supplies of vaccine up to that time were required for the immunization of children and groups subject to special risk. By 30th June, 1959, 347,795 adults had completed the course of injections, and a further 838,810 had commenced the course.

POLIOMYELITIS: NEW CASES NOTIFIED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954 ..	555	569	134	176	436	10	..	26	1,906
1955 ..	222	235	190	182	33	7	4	1	874
1956 ..	240	251	112	122	401	55	..	13	1,194
1957 ..	58	13	24	16	8	6	..	..	125
1958 ..	23	60	5	10	2	..	..	..	100

8. **Free Milk for School Children Scheme.**—In 1950, the States Grants (Milk for School Children) Act was passed. The object of this Act was to improve the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending public or private primary schools, including nursery schools, kindergartens, crèches and aboriginal missions, are eligible to receive free milk. The cost of the milk plus half the capital or incidental costs, including administrative expenses of the scheme, is reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30th June, 1959, approximately 1,485,000 children were entitled to receive free milk under this scheme.

Expenditure by the Commonwealth Government under the scheme since its inception has been as follows:—

COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1950-51 to 1953-54 ..	2,059,047	1,002,766	259,600	406,042	267,614	369,970	943	16,233	4,382,215
1954-55 ..	980,589	498,000	323,340	156,000	127,015	145,695	921	10,760	2,242,320
1955-56 ..	1,042,173	540,000	308,000	184,000	137,211	185,000	1,016	14,048	2,411,448
1956-57 ..	1,094,469	600,901	386,999	200,000	158,659	156,275	1,323	16,146	2,614,772
1957-58 ..	1,139,512	677,000	401,000	212,000	153,600	160,433	860	18,186	2,762,591
1958-59 ..	1,190,048	782,623	474,909	235,879	182,249	181,025	2,799	19,104	3,068,636

The figures in the foregoing table differ slightly from those in the table shown in Chapter XVIII., Welfare Services, page 686, as they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e., the cost of the milk).

§ 3. Commonwealth Laboratories and Research Institutions.

1. **National Health and Medical Research Council.**—In 1926, the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between the Commonwealth and State Health Authorities". This council held sessions each year except in 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

- To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research.
- To advise the Commonwealth Government on the expenditure of money specifically appropriated to be spent on the advice of this Council.
- To advise the Commonwealth Government on the expenditure of money on medical research and on projects of medical research generally.
- To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The council consists of the Commonwealth Director-General of Health (as chairman), three officers of his department, the official head of the Health Department in each State, and the Director of Public Health for Papua and New Guinea, together with ten other members one each being nominated by the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the Council of the Australian College of General Practitioners, the College of Pathologists of Australia, the Australian Dental Association, the Australian Paediatric Association, the College of Radiologists of Australasia and (jointly) the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister of State for Health, also serve on the council.

The first session of the National Health and Medical Research Council was held at Hobart in February, 1937. The forty-eighth session was held at Sydney in November, 1959.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to assist:—(a) departments of the Commonwealth or of a State engaged in medical research; (b) universities for the purpose of medical research; (c) institutions and persons engaged in medical research; and (d) in the training of persons in medical research.

Approved research institutions under this system now number 74. For 1960, grants for projects numbered 118 in the following fields:—bacteriology, biochemistry, biophysics, clinical research, dentistry, epidemiology, haematology, medical chemistry, neurology, neuro-physiology, obstetrics, pathology, physiology and pharmacology, tuberculosis and diseases due to viruses. In certain instances, equipment and apparatus have been made available by the council; this has greatly facilitated some specialized lines of research. The wide scope of work being carried out is greatly assisted by the formation of committees which meet regularly and advise the council on such subjects as industrial hygiene, public health, epidemiology, maternal and child welfare, radio-active isotopes, antibiotic distribution, nursing, tropical physiology and hygiene, tuberculosis, staphylococcus infections, dentistry and the latest developments in X-ray technology and application.

The research work being done under these grants is of a high standard, many of the individual investigators enjoying international reputations. Beyond this practical achievement, the original objectives of the council are being attained by encouraging young graduates to take up research work and by securing a continuity and permanence of medical research in Australia.

Four scholarships are available each year to allow study overseas for one year. In addition, assistance is often given to scholarship-holders to cover part of their travel expenses.

2. **The National Biological Standards Laboratory.** The Therapeutic Substances Act 1953 provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent.

The Director-General of Health is authorized under this Act to set up laboratories to test such substances. Since 1956, products have been analysed for the Commonwealth in the pharmacology laboratories of the Universities of Sydney and Melbourne, and in the Commonwealth Laboratory, Department of Customs and Excise, Melbourne. In 1958, the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The Laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory and an Antibiotics Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory, an Endocrine Products Laboratory and a Pharmacology Laboratory.

The Antibiotics Laboratory tests samples of the most widely used antibiotics collected from pharmacies in all States and from the manufacturers. The Analytical Chemistry Laboratory commenced work in March, 1960, the Viral Products Laboratory and the Pharmacology Laboratory in April, 1960.

The National Biological Standards Laboratory will analyse therapeutic substances used in human and veterinary medicine to determine whether they conform to the standards in the British Pharmacopoeia. The laboratories receive International Reference Standards from stocks maintained in London and will issue Australian Reference Standards which have been assayed against the International Standards.

3. Commonwealth Serum Laboratories.—The Laboratories were established in 1916 under the administration of the Department of Trade and Customs and since 1921 have operated under the Department of Health.

Their basic function is to ensure the supply of essential biological products to the Commonwealth in line with its national health needs. This includes—

- (a) Production and supply of essential biological products.
- (b) Research and development relating to biological products and allied fields.
- (c) The maintenance of potential production capacity for use in emergencies.

Since their foundation, the Laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staffs total over 1,100.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy test materials and desensitizing preparations, culture media and diagnostic agents for clinical and laboratory work.

Continuous research is conducted into the relevant aspects of bacteriology and immunology, and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the Laboratories, the most recent being the production of poliomyelitis (Salk) vaccine.

Facilities are maintained for investigation in relation to public health matters which it is inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine.

The Laboratories serve as a national centre for the maintenance in Australia of International Standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for W.H.O. in collating reports of the prevalence of certain infectious diseases, and provide facilities for the identification of diseases.

Veterinary biological products produced at the Laboratories have given the lead to other producers in Australia, resulting in the diminution of incidence of a number of serious infectious stock diseases.

4. The Commonwealth Health Laboratories.—Health Laboratories, of which there are fourteen, are situated in the following towns: Albury, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. They were established as an essential part of the quarantine

system but were also to undertake research into local health problems and to provide doctors of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other, is essential to the investigation and control of disease.

From this standpoint, the Laboratories have already proved their value in the determination of leptospirosis and endemic typhus in North Queensland, in the investigation of special local problems in Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations, close co-operation has existed with State and local health and hospital services, especially in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers previously unclassified in that State. In this investigational work, as well as in more routine activities, the Laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the School of Public Health and Tropical Medicine, Sydney.

5. Commonwealth Acoustic Laboratories.—Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942–46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over this laboratory in January, 1947, and subsequently established branch laboratories in all other State capitals.

The Acoustic Laboratories Act 1948 gave the Minister for Health the right to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals and in respect of problems associated with noise as it affects individuals. In 1949, the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. The minister has extended the Laboratories' functions to include:—(1) provision and maintenance of hearing aids on behalf of Repatriation and other Commonwealth Departments; (2) assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; (3) the making of hearing tests of Civil Aviation aircrew as required by international agreement; and (4) the making of independent tests on behalf of State and other authorities.

The Sydney Laboratory is responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

6. Commonwealth X-ray and Radium Laboratory.—The Commonwealth Radium Laboratory was established in 1929 by the Commonwealth Department of Health to act as the custodian of radium and to ensure its equitable distribution and satisfactory use.

A total of 10 grams of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, has been distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all persons requiring it, irrespective of their ability to pay. This work is co-ordinated by the Department. From time to time, portions of the original radium holding have been remounted by the Department in forms more suitable for recently developed techniques.

In 1935, the Commonwealth Department of Health extended the work of the Commonwealth Radium Laboratory to include the investigation of the physical problems of radiation therapy generally. This laboratory, now known as the Commonwealth X-ray and Radium Laboratory, is maintained, controlled, and staffed by the Commonwealth Department of Health. It is specifically designed for work with X-rays and radium, and is amply provided with all necessary equipment for research work, including a 400,000 volt high-tension generator. The free-air chamber which acts as the Australian standard X-ray dosimeter is maintained in the Laboratory.

The Laboratory co-operates closely with the local physical services which have been developed in the other capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of radiation exposure of X-ray and radium workers. It also undertakes investigations into physical problems arising in the use of X-rays and radium treatment. In recent years, the Laboratory has widened its functions to include investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography.

During the year 1958-59, 66,646 millicuries of radon were prepared and issued from the Laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia and Western Australia. A further 23,776 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1957-58 were 77,572 and 23,994 millicuries respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development and enables very efficient use to be made of the radium available.

Supplies of artificial radio-isotopes have been made available through the development of atomic energy programmes overseas. The radio-isotopes can be used medically either as an alternative to natural radio-active materials such as radium and radon, or they may be administered orally or intravenously to patients, in which case the selective up-take by a particular organ or tissue may be used to determine its condition. In addition, radio-isotopes are used in industry, in production control, the investigation of the efficiency of processes and as research tools.

The importation of artificial radio-isotopes is restricted under the Customs (Prohibited Imports) Regulations, approval for importation being given through the Laboratory by the Director-General of Health after it has been established that the isotope will be used safely and usefully. Isotopes used in Australia are obtained from Great Britain, Canada and the United States of America, and are imported through the Laboratory.

During 1958-59, 50 different radio-isotopes were imported for all purposes. This represented 660 separate deliveries from overseas sources of supply. Of this number of shipments, 330 were for medical purposes, 284 for research purposes and 46 for industrial purposes. In 1957-58, the total deliveries were 656, of which 328 were for medical purposes, 280 for research purposes and 48 for industrial purposes. In addition to the 660 deliveries of radio-isotopes arranged by the Laboratory in the year 1958-59, 55 certificates of approval under the Customs (Prohibited Imports) Regulations were issued to permit the entry of radioactive materials imported directly by local firms from their overseas principals. These radioactive materials were for use in industry, medicine and research. In the year 1957-58, the corresponding figure was 43. In addition, in the year 1958-59, 39 certificates of approval were issued to the Australian Atomic Energy Commission to permit the entry of special radio-active materials, including calibrated reference sources, for use within that establishment. Six shipments of static isotopes were also procured.

Regular bulk supplies of radio-isotopes for medical purposes are obtained and these are distributed by the Laboratory as individual doses for use on patients throughout Australia according to a policy developed by the Committee on Radio-isotopes of the National Health and Medical Research Council. These radio-isotopes are issued free of charge.

Seven different radio-isotopes were imported in the year 1958-59 for medical purposes, labelled compounds of radio-iodine, radio-phosphorus and radio-colloidal gold being in greatest demand. However, the use of radio-colloidal gold for therapeutic purposes was reduced to approximately half that of the previous year; colloids of chromic and zirconium phosphate labelled with radio-phosphorus being used as the preferred alternative. During 1958-59, the demand for special compounds labelled with radio-iodine and for radio-chromium, radio-iron and radio-cobalt labelled vitamin B12 continued.

In all, approximately 6,400 individual doses of radio-isotopes were issued by the Laboratory during 1958-59 for use on patients. The corresponding figure for 1957-58 was approximately 6,100.

The use of radio-isotopes in research and industry is also steadily increasing.

Investigations of the degree of protection necessary in particular applications of X-rays and radio-active materials continue to be an important activity of the Laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionizing radiation in medicine, research and industry and carries out measurements of radiation levels in existing departments and laboratories. An extensive film badge service to measure the radiation dose received by those exposed to ionizing radiation is maintained. In 1958-59, 18,049 film badges were processed and assessed. The corresponding figure for 1957-58 was 16,010 films.

The Laboratory has an extensive library of special radiological literature and issues regular library bulletins. Through its advisory service, the Laboratory is available for consultation to all users of ionizing radiation. Technical communications on topics related to its functions are issued from time to time to medical men engaged in the clinical investigation and treatment of cancer and to research workers and those in industry interested in applications of radiation.

Officers of the Laboratory serve on a number of committees, both national and international.

7. The School of Public Health and Tropical Medicine.—In March, 1930, the Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The library, which includes approximately 17,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the school comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are also provided in hygiene and social medicine for students of architecture and social studies, in tropical medicine for lay officers, nurses in tropical service, and missionaries, and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

Investigation covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island and Nauru in co-operation with the local administrations and the South Pacific Commission.

8. Institute of Child Health.—The institute, which was established early in 1950 in association with the School of Public Health and Tropical Medicine, Sydney, is located at the Royal Alexandra Hospital for Children, where a special teaching and research unit with the necessary ancillary services was made available by the Board of the Hospital.

The Director of the Institute is a senior honorary paediatrician on the staff of the Hospital, and thus has access to the 430 beds for teaching purposes. He is also the Professor of Child Health in the University of Sydney.

The Director is required to co-ordinate and control under-graduate and post-graduate teaching in paediatrics and child health, and thus the Institute and its staff are brought into close contact with each group of medical students who attend the Children's Hospital for 10 weeks tuition in paediatrics and child health.

In the 10 years since its foundation, the staff of the Institute has carried out a number of substantial research projects, including the natural history and prevention of rheumatic fever in childhood, accident prevention, endemic goitre, endocrine disorders and stress in children. All told some 90 scientific papers describing the research work have been published in Australian and overseas scientific journals.

The Institute and its staff have come to be recognized as an authoritative source for advice and information on many matters relating to paediatrics and child health. The Director and senior members have acted as consultants to Medical Schools of Universities and to Commonwealth and State Authorities and on missions for the World Health Organization to a number of foreign countries. At present, the staff consists of the Director, a Senior Medical Officer, two other medical officers (full time), four part-time medical officers, a social psychologist, a social worker, clerical and stenographic staff.

9. Commonwealth Bureau of Dental Standards.—This laboratory is concerned with research, standards, and testing, related to dental and allied materials and processes. It became part of the Department of Health in January, 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time, the former Dental Materials Research Laboratory established itself as a recognized authority in its special field and proved to be of particular value to the defence services, government

departments, the dental profession and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use, the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The functions of the Bureau are: (1) original research into dental equipment, materials, techniques and processes; (2) regular reporting of the results of these investigations in recognized Australian scientific journals; (3) the development of specifications for dental materials and equipment, through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association, and manufacturers and distributors, and (4) the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

10. The Australian Institute of Anatomy.—The Australian Institute of Anatomy is situated in a building erected in Canberra by the Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a museum in which such specimens could be preserved for future generations. Sir Colin MacKenzie, the first Director of the Institute of Anatomy, presented his entire private collection of Australian fauna to the Commonwealth Government. This gift was housed in the Institute. The Institute became part of the Commonwealth Department of Health in 1931.

The original collection has been greatly augmented. A list of gifts to the Australian nation may be found in Official Year Book No. 39, page 1277. In addition to these donations of material, there have been several endowments for orations and lectures, particulars of which are shown in previous issues of the Official Year Book.

The Institute consists of a museum section and a laboratory section. In the museum section, which is open to the public, a portion of the original collection of anatomical specimens assembled by Sir Colin MacKenzie is displayed, together with ethnological collections which have been added since the foundation of the Institute. The material has been arranged to present simple lessons in human hygiene, to display the anatomical features and peculiarities of Australian fauna, and to display aspects of the character of Australian aboriginals and natives of Papua and New Guinea.

A number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, the Commonwealth Health Laboratory for the Australian Capital Territory and a Veterinary Laboratory.

The scientific research work of the Institute is now concentrated on problems of nutrition. It takes the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism. For further information concerning the Institute, see Official Year Book No. 32, pages 919–21.

§ 4. Control of Infectious and Contagious Diseases.

1. General.—The provisions of the various Acts with regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the heading of quarantine and notifiable diseases, including venereal diseases.

2. Quarantine.—The Quarantine Act is administered by the Commonwealth Department of Health, and has three sections of disease control, as follows:—(i) Human quarantine, which controls the movements of persons arriving from overseas until it is apparent that they are free of quarantinable disease; (ii) Animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) Plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States and, in general, the administration of interstate movements of animals and plants is left in the hands of the States.

(i) *Human Quarantine.* All passengers and crews arriving in Australia from overseas, whether by air or sea, are subjected to a medical inspection by quarantine officers for the purpose of preventing the introduction of disease into Australia. At the major ports, full-time quarantine officers carry out the work but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by a medical officer of the Commonwealth Department of Health with the title of Commonwealth Director of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin, Thursday Island and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever and measles are directed to appropriate care and placed in isolation where necessary.

The increasing use of air travel has created particular quarantine problems. Before the use of air transport, persons suffering from an infectious disease would show symptoms on arrival and before disembarkation. Passengers travelling by air, however, can arrive well within the incubation period, and they are, therefore, required to be vaccinated against smallpox before departure. Those from an area infected with cholera or yellow fever are required to be inoculated in addition against the particular disease prevalent in that area. They are also required to report any sickness which they might suffer within the fourteen days after arrival. Passengers arriving in Australia by sea are also required to be vaccinated against smallpox, but exemption is granted to those who hold religious convictions against vaccination or who are suffering from a medical condition which makes vaccination undesirable. All passengers, whether they arrive by sea or air, are required to give their intended place of residence so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

The number of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of oversea vessels and aircraft calling at Australian ports during the year ended 30th June, 1959, and during the preceding four years, are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEA VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, YEAR ENDED 30th JUNE, 1959.

Disease.				Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
					Passengers.	Crew.
Chicken Pox	..	..	..	23	83	1
Gastro Enteritis	..	..	..	1	65	..
Infective Hepatitis	..	..	..	1	..	1
Influenza	..	..	..	1	17	..
Measles	..	..	..	29	144	5
Mumps	..	..	..	11	22	..
Poliomyelitis	..	..	..	1	1	..
Rubella	..	..	..	3	3	..
Scarlet Fever	..	..	..	1	1	..
Syphilis	..	..	..	1	..	1
Varicella	..	..	..	4	5	1
Whooping Cough	..	..	..	2	3	..
Total	..	..	..	(a) 63	344	9

(a) On some vessels there were cases of more than one disease.

HUMAN QUARANTINE: OVERSEA VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASE FOUND THEREON.

Year ended 30th June.	Number of Oversea Vessels and Aircraft Cleared.		Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
	Ships.	Aircraft.		Passengers.	Crew.
1955	2,319	1,310	48	267	3
1956	2,592	1,417	26	104	4
1957	2,702	1,747	53	216	10
1958	2,658	1,881	61	202	20
1959	2,826	1,938	63	344	9

(ii) *Animal Quarantine.* Animal quarantine, authorized by the provisions of the Quarantine Act 1908–1950, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Domesticated animals, i.e., horses, cattle, pigs, sheep, goats, dogs, cats and poultry, are admitted from a limited number of countries depending on diseases present in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia, they are subject to quarantine detention.

Zoological specimens are imported into registered zoos where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a somewhat similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, special types of wool, skins and hides, are specially treated under quarantine control, while such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items such as harness fittings, fodder, and ship's refuse, are treated to destroy any possible infection.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. Formerly, the full responsibility for this administration fell on the Director of Quarantine. The organization of the Division provides an excellent example of Commonwealth and State co-operation. The central administration is situated within the Health Department at Canberra, with a Director, an Assistant Director and Veterinary Officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of the State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each capital city.

The Division participates in world-wide international notification of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the quarantine control of imports, there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the "General" and "Plant" divisions of the quarantine service. Many diseases of animals are communicable to man and for this reason "Animal" and "General" quarantine administration are in some respects inseparable. Similarly the interests of "Animal" and "Plant" divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

In each alternate year, the Director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians which meets under the auspices of the Australian Agricultural Council to discuss problems of animal health and disease control and animal quarantine.

In the Australian Capital Territory, veterinary officers of the division exercise control over animal disease, dairy and piggery hygiene, manage the Canberra abattoir and give advice to stockowners.

(iii) *Plant Quarantine.* Since 1st July, 1909, the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the Quarantine Act 1908-1950, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for which they are reimbursed by the Commonwealth. In 1921, the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Division of Plant Quarantine was created, under a Director who is responsible for policy and legislation and for co-ordinating the work of the State officers, who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, or if the treatment be impracticable may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles:—(a) The importation of plants likely to be infected with plant diseases, noxious fungi or poison plants is prohibited; (b) Agricultural seed must conform to standards of purity, insect pest and disease freedom; (c) Many commodities such as hops, cotton, peanuts in shell, potatoes, certain crop seeds, vines and specified plants may be imported only by approved importers under special conditions; (d) Certain plant products such as bulbs and timber (in logs or sawn) from specified areas may be imported only if accompanied by certificates showing that prescribed treatment has been given in the country of origin; (e) All nursery stock, including bulbs, must be grown in post-entry quarantine. It may only be imported by approved importers who are registered for this purpose. The numbers of plants which may be imported in any one year are limited.

3. *Notifiable Diseases.*—(i) *General.* (a) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread of, and the compulsory notification of, infectious disease. When any such disease occurs, the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts, and on the appearance of certain diseases. Regulations are prescribed for the disinfecting and cleansing of premises, and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as smallpox and leprosy.

(b) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for each State and Territory the diseases notifiable in 1958 and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY OF AUSTRALIA
AND NUMBER OF CASES REPORTED DURING THE YEAR ENDED
31st DECEMBER, 1958.**

Disease.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism	105	140	276	8	21	*	6	..	556
Amoebiasis	*	6	7	2	1	1	2	..	19
Ankylostomiasis	20	..	82	..	1	..	259	..	362
Anthrax .. ..	*	..	..	..	..	..	..	..	..
Bilharziasis .. ..	*	..	..	..	..	..	..	..	..
Breast Abscess	(a) 6	(b) 161	122	*	*	*	*	3	292
Brucellosis	23	17	..	1	..	5	..	..	46
Chorea	6	20	..	1	1	..	1	..	29
Dengue .. ..	..	..	*	..	..	*	..	..	..
Diarrhoea, infantile	193	627	167	13	12	9	97	26	1,144
Diphtheria	28	37	10	2	24	2	..	..	103
Dysentery, bacillary	*	335	78	57	121	2	108	..	701
Encephalitis	25	37	4	11	..	..	2	2	81
Erythema Nodosum .. ..	..	15	..	1	2	..	3	..	21
Filariasis	*	..	2	..	..	..	..	..	2
Homologous serum jaundice .. ..	*	..	*	..	..	*	..	..	..
Hydatid .. ..	..	19	..	4	..	18	..	..	41
Infective hepatitis	3,262	1,053	469	307	396	51	45	16	5,599
Influenza	*	*	*	4	*	*	*	*	4
Lead poisoning .. ..	..	..	10	..	1	..	..	..	11
Leprosy .. ..	..	2	8	..	38	..	36	..	84
Leptospirosis	18	..	88	..	..	*	..	1	107
Malaria .. ..	..	7	18	..	2	..	11	1	39
Meningococcal infection	72	78	31	5	9	5	..	..	200
Ophthalmia	*	*	*	..	30	..	..	..	30
Ornithosis .. ..	..	2	*	6	..	*	..	..	8
Paratyphoid fever	10	1	..	3	2	..	..	..	16
Poliomyelitis	23	60	5	10	2	..	..	..	100
Puerperal fever	46	5	34	3	1	..	..	..	89
Q-fever	*	*	50	*	*	..	*	*	50
Rubella	*	1,745	27	271	3,059	25	8	128	5,263
Salmonella infection	*	*	*	59	45	*	3	..	107
Scarlet fever	703	1,079	177	133	190	42	4	18	2,346
Tetanus	*	13	32	6	11	..	..	..	62
Trachoma	*	1	*	..	364	*	..	..	365
Trichinosis .. ..	*	*	*	..	..	*	..	..	..
Tuberculosis	1,399	639	764	302	374	168	55	7	3,708
Typhoid fever	17	9	11	3	22	..	..	..	62
Typhus—flea, mite or tick borne	5	..	19	..	5	..	..	..	29

* Not notifiable.

(a) Notifiable from December, 1958.

(b) Notifiable from August, 1958.

NOTE.—No cases of cholera, plague, smallpox, epidemic typhus or yellow fever were notified.

(ii) *Venereal Diseases.* The prevention and control of venereal diseases are undertaken by the States. Each State except South Australia has a Venereal Diseases Act, or provisions in its Health Act govern the control of these diseases. Under these Acts, treatment has been made compulsory. Consequent steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions for venereal diseases only if they are signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person and the employment of an infected person in the manufacture or distribution of foodstuffs.

§ 5. Commonwealth Grants to Organizations Associated with Public Health.

1. **General.**—In addition to providing the services mentioned in sections 1–4 above, the Commonwealth Government gives financial assistance to certain organizations associated with public health. Examples of organizations included in this category are the National Fitness Organizations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, and the Lady Gowrie Child Centres.

2. **National Fitness.**—In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State and Local Government authorities in the National

Fitness Movement. Following the recommendations of the first Commonwealth Council meeting in 1939, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education. In June, 1942, this grant was increased to £72,500 to include grants to State Education Departments and for the work in the Australian Capital Territory.

The functions of autonomous National Fitness Councils operating in each State are connected with voluntary leader training, camping and hostels, assisting the work of voluntary youth and amateur sports organizations, and providing advisory services to these organizations.

The six State Education Departments spend their Commonwealth grants to assist the promotion of physical education programmes in schools and teachers' colleges. This is done mainly through the organization of training courses for teachers and the development of school camping, which in most States is part of the regular school physical education programme. In New South Wales and Victoria, holiday play centres and camps have become a special feature of the programmes, while Queensland has led the way in the provision of school swimming pools financed in co-operation with parent organizations.

In the universities, departments of physical education provide either a diploma course in physical education or a major course in physical education as part of a degree course.

An annual grant of £2,000 is allocated in the Australian Capital Territory and is distributed on a £1 for £1 basis to youth and sports organizations for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities.

3. Royal Flying Doctor Service of Australia.—The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to white and aboriginal persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury, they also use these sets to seek medical advice. If the illness or injury is serious, a doctor flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies in it. Further instructions are given by doctors over the air.

From time to time, special purpose work is undertaken in connexion with flood relief, searching for lost parties and co-ordinating cattle movements.

The service is not conducted with a view to profit. In some sections, small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use their services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year.

The Commonwealth has made an annual grant to this organization for operational expenses since 1936. Prior to that, from 1928 to 1931, the Commonwealth subsidized the Australian Inland Mission Aerial Medical Service. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from £25,000 to £40,000 per annum for four years from 1st July, 1958. The Commonwealth grant towards capital expenditure was increased from £15,000 to £27,500 per annum for the same period. This capital expenditure grant is made on a £1 for £1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of six sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia and the Eastern Goldfields of Western Australia. The Queensland, New South Wales and South Australian sections are centred in their own States but in Western Australia there are three centres, that in the far north being under the control of the Victorian section, and that in the south-east under the control of the Eastern Goldfields section. The third one, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

4. Red Cross Blood Transfusion Service.—The Australian Red Cross Society conducts a blood transfusion service in all States.

Before 1952–53, the cost of the Red Cross Blood Transfusion Service was borne by the Red Cross Society with assistance from the State Governments. In 1952, the Commonwealth made an amount of £50,000 available to the Red Cross Society through the State Governments. The States were to continue to assist the society at the same level as previously and make arrangements with the society to share any deficit still remaining.

The Commonwealth recognized that the proper maintenance of a blood transfusion service was of the utmost importance to the welfare of the community and that the service was one eminently suited for operation by the Australian Red Cross Society. In March, 1954, therefore, the Commonwealth offered each State Government a grant equal to 30 per cent. of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in that State. The grant was to be made subject to the conditions that the government of the State concerned agreed to meet 60 per cent. of the cost of operating the service in that State, leaving the society to meet the remaining 10 per cent. of the cost. All States accepted this proposal. The following table sets out the payments made by the Commonwealth government to the State governments in 1958-59:—

RED CROSS BLOOD TRANSFUSION SERVICE: PAYMENTS TO STATES FOR 1958-59.

					£
New South Wales	..	..	..	..	35,263
Victoria	..	..	..	..	40,858
Queensland	..	..	..	..	25,102
South Australia	..	..	..	..	13,468
Western Australia	..	..	..	..	12,008
Tasmania	..	..	..	..	4,830
Total	..	..	..	..	131,529

5. Lady Gowrie Child Centres.—In 1940, the Commonwealth Government established a pre-school demonstration centre in each of the six capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by the Australian Pre-school Association for the Commonwealth Department of Health.

The specialized function of the centres is that of demonstration and research and the programmes are carried out under the supervision of the Federal Pre-school Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children, and in demonstrating an educational health programme based on the developing needs of children aged 3 to 6 years.

The centres are used for observation by university students of Medicine, Psychology, Education, Social Studies, Architecture, Physical Education, Teacher Training Colleges, Nursing Colleges and Domestic Science.

Fuller information concerning these centres was given in earlier issues of the Year Book (*see* No. 44, p. 536).

C. INSTITUTIONS.

§ 1. General.

In Australia, institutions related to public health may be classified to three groups: (a) State, (b) public and (c) private. To the first group belong those institutions wholly provided for by the State, such as the principal mental hospitals in the various States and the Government and leased hospitals in Western Australia. To the second group belong public institutions of two kinds, namely:—(i) those partially subsidized by the State or by State endowments for maintenance, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the first of these two kinds belong such institutions as the principal metropolitan hospitals; in the second are included institutions established and endowed by individuals for the benefit of the needy generally. All institutions of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in respect of (c) general tabulation is impossible. Owing to differences in the dates of collection and tabulation, it is impossible to bring statistics of some charitable institutions to a common year.

§ 2. Public Hospitals (other than Mental Hospitals).

1. General.—All the State capitals have several large and well-equipped hospitals and there is at least one in every important town. In large centres, there are special hospitals for infectious diseases, tubercular patients, women, children, and patients suffering from chronic diseases.

The particulars given herein refer to public hospitals at the latest available date and include all institutions affording hospital relief, whether general or special, with the exception of mental hospitals, repatriation hospitals, and private hospitals conducted commercially.

2. **Number, Staff and Accommodation.**—Details regarding the number of public hospitals, staff, and accommodation for the year 1957–58 are given in the following table:—

PUBLIC HOSPITALS: NUMBER, STAFF AND ACCOMMODATION, 1957–58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number of Hospitals	270	138	139	64	93	28	4	1	737
Medical Staff—									
Honorary ..	4,029	1,420	26	463	330	106	..	36	6,410
Salaried ..	815	730	762	126	116	117	15	3	2,684
<i>Total ..</i>	<i>4,844</i>	<i>2,150</i>	<i>788</i>	<i>589</i>	<i>446</i>	<i>223</i>	<i>15</i>	<i>39</i>	<i>9,094</i>
Nursing Staff ..	12,218	8,673	4,915	2,237	2,808	1,242	130	213	32,436
Accommodation—									
Number of beds and cots ..	21,625	12,391	11,293	3,870	4,432	2,381	373	253	56,618

The figures for accommodation shown in the table above include particulars, where available, of a considerable number of beds and cots for certain classes of cases in outdoor or verandah sleeping places.

3. **In-Patients Treated.**—The following table furnishes particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital after their mothers' discharge.

PUBLIC HOSPITALS: IN-PATIENTS TREATED, 1957–58.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males ..	6,190	3,368	3,718	1,117	1,336	824	137	68	16,758
Females ..	8,697	5,017	3,943	1,374	1,407	901	97	102	21,538
<i>Persons ..</i>	<i>14,887</i>	<i>8,385</i>	<i>7,661</i>	<i>2,491</i>	<i>2,743</i>	<i>1,725</i>	<i>234</i>	<i>170</i>	<i>38,296</i>
Admissions and re-admissions during year—									
Males ..	169,719	89,080	93,454	31,347	38,652	12,130	3,454	2,342	440,178
Females ..	265,424	149,671	115,458	41,444	45,200	20,317	3,816	3,995	645,325
<i>Persons ..</i>	<i>435,143</i>	<i>238,751</i>	<i>208,912</i>	<i>72,791</i>	<i>83,852</i>	<i>32,447</i>	<i>7,270</i>	<i>6,337</i>	<i>1,085,503</i>
Total in-patients (cases) treated—									
Males ..	175,909	92,448	97,172	32,464	39,988	12,954	3,591	2,410	456,936
Females ..	274,121	154,688	119,401	42,818	46,607	21,218	3,913	4,097	666,863
<i>Persons ..</i>	<i>450,030</i>	<i>247,136</i>	<i>216,573</i>	<i>75,282</i>	<i>86,595</i>	<i>34,172</i>	<i>7,504</i>	<i>6,507</i>	<i>1,123,799</i>
Discharges—									
Males ..	161,985	84,230	90,159	29,782	37,148	11,451	3,324	2,268	420,347
Females ..	259,291	145,954	112,916	40,228	44,207	19,830	3,730	3,918	630,074
<i>Persons ..</i>	<i>421,276</i>	<i>230,184</i>	<i>203,075</i>	<i>70,010</i>	<i>81,355</i>	<i>31,281</i>	<i>7,054</i>	<i>6,186</i>	<i>1,050,421</i>
Deaths—									
Males ..	7,384	4,619	3,395	1,566	1,396	676	101	78	19,215
Females ..	5,827	3,624	2,342	1,179	913	470	57	62	14,474
<i>Persons ..</i>	<i>13,211</i>	<i>8,243</i>	<i>5,737</i>	<i>2,745</i>	<i>2,309</i>	<i>1,146</i>	<i>158</i>	<i>140</i>	<i>33,689</i>
In-patients at end of year—									
Males ..	6,540	3,599	3,618	1,116	1,444	827	166	64	17,374
Females ..	9,003	5,110	4,143	1,411	1,487	918	126	117	22,315
<i>Persons ..</i>	<i>15,543</i>	<i>8,709</i>	<i>7,761</i>	<i>2,527</i>	<i>2,931</i>	<i>1,745</i>	<i>292</i>	<i>181</i>	<i>39,689</i>
Average daily number resident ..	16,629	8,474	7,490	2,527	2,748	1,740	266	182	40,056

In addition to those admitted to the hospitals, there are large numbers of out-patients treated. During 1957–58, there were 1,107,073 out-patients treated in New South Wales, 541,743 in Victoria, 588,878 in Queensland, 92,718 in South Australia, 127,000 (estimated)

in Western Australia, 83,398 in Tasmania, 86,238 in the Northern Territory and 13,960 in the Australian Capital Territory, making an estimated total for Australia of 2,641,000. The figures quoted refer to cases, as distinct from persons and attendances.

4. **Revenue and Expenditure.**—Details of the revenue and expenditure for the year 1957–58 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1957–58.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Revenue—									
Government aid . . .	22,833	14,741	9,683	5,212	4,341	1,770	731	297	67,015
Commonwealth Hos- pital Benefits, etc.		2,066	2,932	738	1,578		39	54	
Municipal aid . . .		21	..	153	..		..	..
Public subscriptions, legacies, etc. . .	145	1,677	2	100	77	..	..	..	2,001
Fees . . .	8,234	4,337	941	951	1,359	561	37	63	16,483
Other . . .	853	311	96	532	222	4	..	1	2,019
Total . . .	32,065	23,153	13,654	7,686	7,577	2,335	807	415	87,692
Expenditure—									
Salaries and wages	17,100	10,034	6,143	2,963	3,376	1,482	350	251	41,699
Upkeep and repair of buildings and grounds . . .	816	528	268	281	565	55	32	14	2,559
All other ordinary . .	8,378	7,318	5,489	1,625	1,946	776	228	128	25,888
Capital . . .	5,148	4,641	1,673	2,840	1,640	510	197	22	16,671
Total . . .	31,442	22,521	13,573	7,709	7,527	2,823	807	415	86,817

(a) Included in "Other".

5. **Summary.**—A summary, for the years 1953–54 to 1957–58, of the number of public hospitals in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue and expenditure is given in the following table.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Hospitals . . .	699	709	721	731	737
Medical Staff . . .	7,487	7,738	8,103	8,573	9,094
Nursing Staff . . .	26,116	27,566	29,070	31,006	32,436
Beds and cots . . .	50,812	52,979	53,550	55,801	56,618
Admissions during year . .	925,571	1,008,955	994,466	1,028,320	1,085,503
Total in-patients (cases) treated	961,288	1,046,171	1,032,668	1,065,045	1,123,799
Out-patients (cases) (a) . .	2,458,631	2,651,000	2,587,000	2,583,600	2,641,000
Deaths . . .	29,403	32,489	31,417	33,267	33,689
Average daily number resident	34,587	38,179	38,341	39,092	40,056
Revenue (b) . . . £'000	54,971	63,998	71,612	82,182	87,692
Expenditure (b) . . . £'000	54,190	64,323	74,568	83,922	86,817

(a) Partly estimated.
for New South Wales.

(b) Up to and including 1954–55, excludes loan receipts and expenditure

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of persons suffering from Hansen's disease (leprosy) are located at Little Bay, New South Wales; Fantome Island, North Queensland; Derby, Western Australia; and East Arm Settlement, Northern Territory. Special wards for the isolation of leprosy patients have been provided at Fairfield (Victoria) and Wooroloo (Western Australia). Peel Island (Queensland) lazaret was closed down on 5th August, 1959, the patients being transferred to the chronic diseases section of South Brisbane Hospital. At the end of 1959, there were seven cases at Little Bay, 20 at Fantome Island, 126 at Derby, 164 at East Arm Settlement, seven at Fairfield, one at Wooroloo and 10 at South Brisbane Hospital, including three voluntary patients (arrested cases). Of the 335 cases, 263 were full-blood aboriginals, 43 were half-caste aboriginals (including one Japanese-aboriginal half-caste), two were South Sea Islanders, one was an Asian and 26 were Europeans.

§ 4. Mental Hospitals.

1. **General.**—The methods of compiling statistics of mental patients are fairly uniform throughout the States, but there is an element of uncertainty about possible differences in diagnosis in the early stages of the disease. Statistics of mental hospitals (except those relating to revenue and expenditure) include particulars of the two licenced houses in New South Wales. The figures exclude those of reception houses and observation wards in gaols. There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

2. **Hospitals, Staff and Accommodation.**—Particulars regarding the number of hospitals, the medical and nursing staff, and accommodation are given in the following table for the year 1958. Figures for Victoria and Western Australia relate to 31st December, 1958. Figures for the other States relate to 30th June, 1958.

MENTAL HOSPITALS: NUMBER, STAFF, ACCOMMODATION, 1957-58.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S. Aust.	W.Aust. (a)	Tas.	Aust.
Number of Hospitals	14	15	5	2	4	1	41
Medical Staff—							
Males	55	103	12	12	8	3	206
Females	10		2	1	..	..
Persons	(c) 65	103	14	13	8	3	206
Nursing Staff and Attendants—							
Males	1,038	1,155	640	217	190	98	3,338
Females	1,122	1,320	509	238	139	95	3,423
Persons	2,160	2,475	1,149	455	329	193	6,761
Accommodation—							
Number of beds and cots ..	12,700	8,897	4,804	2,708	1,681	797	31,587

(a) Year ended 31st December, 1958. (b) Includes the Epileptic Home. (c) In addition there are 52 visiting specialists who are paid for their services.

3. **Patients.**—Information regarding patients treated during 1957-58 is given in the following table:—

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1957-58.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S.Aust.	W. Aust. (a)	Tas.	Aust.
Number of patients at beginning of year—							
Males	6,694	4,635	2,518	1,325	1,022	371	16,565
Females	7,047	4,810	2,139	1,267	823	382	16,468
Persons	13,741	9,445	4,657	2,592	1,845	753	33,033
Admissions and re-admissions (excluding absconders retaken and transfers from other mental hospitals)—							
Males	1,007	2,289	731	339	192	252	4,810
Females	1,243	1,836	690	322	121	222	4,434
Persons	2,250	4,125	1,421	661	313	474	9,244
Number of persons treated during year—							
Males	7,701	6,924	3,249	1,664	1,214	623	21,375
Females	8,290	6,646	2,829	1,589	944	604	20,902
Persons	15,991	13,570	6,078	3,253	2,158	1,227	42,277
Discharges (including absconders not retaken)—							
Males	549	1,839	519	167	62	209	3,345
Females	735	1,195	589	193	37	194	2,943
Persons	1,284	3,034	1,108	360	99	403	6,288
Deaths—							
Males	430	333	200	110	65	32	1,170
Females	516	403	160	116	68	35	1,298
Persons	946	736	360	226	133	67	2,468
Number of patients at end of year							
Males	6,722	4,752	2,530	1,387	1,087	382	16,860
Females	7,039	5,048	2,080	1,280	839	375	16,661
Persons	13,761	9,800	4,610	2,667	1,926	757	33,521
Average daily number of patients resident—							
Males	5,861	4,042	2,406	1,348	982	371	15,010
Females	5,832	4,261	1,921	1,222	699	378	14,313
Persons	11,693	8,303	4,327	2,570	1,681	749	29,323
Number of patients at end of year per 1,000 of population—							
Males	3.63	3.41	3.49	3.05	2.97	2.20	3.37
Females	3.83	3.67	3.01	2.90	2.42	2.32	3.41
Persons	3.73	3.54	3.25	2.97	2.70	2.26	3.39
Average number of patients resident in mental hospitals per 1,000 of population—							
Males	3.19	2.93	3.35	3.00	2.71	2.15	3.03
Females	3.20	3.13	2.81	2.80	2.04	2.34	2.96
Persons	3.20	3.03	3.08	2.90	2.38	2.24	3.00

(a) Year ended 31st December, 1958.

(b) Includes persons treated at the Epileptic Home.

Persons who are well advanced towards recovery are allowed to leave the hospitals and live with their relatives or friends, but they are under supervision and their names are kept in the records. These persons have been included in the above table as patients at the end of the year.

4. Revenue and Expenditure, 1957-58.—Mental hospitals are maintained by the State Governments. They derive a small proportion of their revenue from other sources (chiefly patients' fees, pharmaceutical benefits and sale of farm produce), but in 1957-58 this source provided less than 4 per cent. of all their revenue. For a statement on the funds provided by the Commonwealth Government for mental hospitals, see para. 3. Mental Hospitals, page 661.

In New South Wales, the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals:—

MENTAL HOSPITALS: FINANCES, 1957-58.
(£.)

Particulars.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
<i>Revenue (excluding Government Grants)—</i>							
Fees of patients ..	391,872	..	76,077	51,264	40,742	6,581	566,536
Other ..	78,652	40,761	8,601	48,950	15,681	928	193,573
<i>Total</i>	<i>470,524</i>	<i>40,761</i>	<i>84,678</i>	<i>100,214</i>	<i>56,423</i>	<i>7,509</i>	<i>760,109</i>
<i>Expenditure—</i>							
Salaries and wages	2,670,620	2,760,369	1,175,843	557,470	496,641	245,610	7,906,553
Upkeep and repair of buildings, etc.	287,137	328,870	9,329	63,503	32,352	9,942	731,133
All other ..	1,793,180	2,292,894	792,748	400,492	265,691	145,095	5,690,100
Capital (b) ..	1,050,132	1,666,986	336,778	276,727	85,567	225,558	3,641,748
<i>Total ..</i>	<i>5,801,069</i>	<i>7,049,119</i>	<i>2,314,698</i>	<i>1,298,192</i>	<i>880,251</i>	<i>626,205</i>	<i>17,969,534</i>

(a) Includes the Epileptic Home. (b) Capital expenditure includes purchases of land, cost of new buildings, and additions to buildings.

5. Summary for Australia.—The following table gives a summary relating to mental hospitals in Australia for each of the years 1953-54 to 1957-58:—

MENTAL HOSPITALS: SUMMARY, AUSTRALIA.

Particulars.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Hospitals	34	37	39	40	41
Medical Staff	140	144	161	188	206
Nursing Staff and Attendants ..	5,541	5,748	6,030	6,470	6,761
Beds	29,244	29,690	30,089	30,617	31,587
Admissions	5,628	5,722	7,524	8,276	9,244
Discharged as recovered, relieved, etc.	3,126	3,021	4,235	5,282	6,288
Deaths	2,178	2,276	2,529	2,672	2,468
Patients at end of year	30,798	31,223	32,453	32,775	33,521
Average daily number of patients resident	27,921	28,012	28,639	29,032	29,323
Revenue (excluding Government Grants) £	888,681	654,486	566,556	689,744	760,109
Total Expenditure £	11,680,996	13,189,269	15,342,044	17,326,981	17,969,534

6. Number of Mental Patients.—The total number returned as under treatment at the end of each year shows a slight increase during the period but the proportion to total population shows a slight decline. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an increase in mental diseases. The difference between States in the number of patients in mental hospitals per 1,000 of population may also to some extent be the result of differences in practice. Figures for Victoria and Western Australia relate to 31st December of the year shown; figures for the other States relate to 30th June of the year shown.

PATIENTS IN MENTAL HOSPITALS.

State.	1954.	1955.	1956.	1957.	1958.
NUMBER.					
New South Wales	13,169	13,422	13,767	13,741	13,761
Victoria	7,795	7,934	8,713	9,187	9,800
Queensland(a)	4,621	4,704	4,735	4,657	4,610
South Australia	2,644	2,613	2,658	2,592	2,667
Western Australia	1,798	1,790	1,814	1,845	1,926
Tasmania	771	760	766	753	757
Australia	30,798	31,223	32,453	32,775	33,521

PER 1,000 OF POPULATION.

New South Wales	3.85	3.85	3.87	3.79	3.73
Victoria	3.14	3.11	3.31	3.40	3.54
Queensland(a)	3.51	3.50	3.45	3.33	3.25
South Australia	3.32	3.19	3.13	2.97	2.97
Western Australia	2.77	2.67	2.65	2.63	2.70
Tasmania	2.50	2.42	2.40	2.30	2.26
Australia	3.41	3.38	3.43	3.39	3.39

(a) Includes persons treated at the Epileptic Home.

CHAPTER XVIII.

WELFARE SERVICES.

A. COMMONWEALTH SOCIAL SERVICES.

§ 1. Introduction.

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:—

“(xxiii) Invalid and old-age pensions:

(xxiiia) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:”.

The latter paragraph was inserted in the constitution after being accepted by the electors at a referendum on 28th September, 1946. The enabling Act was assented to on 19th December, 1946.

Before 1947, each social service benefit was paid under a separate Act. On 1st July, 1947, with the passage of the Social Services Consolidation Act 1947, all Acts providing social service benefits were amalgamated. This Act eliminated certain anomalies and obsolete provisions and changed the title “old-age pension” to “age pension”. The word “Consolidation” was dropped from the short title of the Act in 1954. The Act is at present styled the Social Services Act 1947–1959.

The social service benefits provided by the Commonwealth Government, and the date on which each came into operation, are:—

Age pension	.. .. .	1st July, 1909
Child endowment (for other than first child)	.. .. .	1st July, 1941
Child endowment (for first child)	.. .. .	20th June, 1950
Commonwealth Rehabilitation Service	.. .. .	10th December, 1948
Funeral benefit	.. .. .	1st July, 1943
Invalid pension	.. .. .	15th December, 1910
Maternity allowance	.. .. .	10th October, 1912
Sickness benefit	.. .. .	1st July, 1945
Special benefit	.. .. .	1st July, 1945
Unemployment benefit	.. .. .	1st July, 1945
Widows' pension	.. .. .	30th June, 1942

Information concerning these benefits appears in later sections of this chapter, pages 687–700. Particulars of benefits provided under the National Health Service appear in Chapter XVII.—Public Health, pages 660–666.

§ 2. Commonwealth Expenditure on Social and Health Services.

1. **National Welfare Fund.**—The National Welfare Fund was established by the National Welfare Fund Act 1943 to finance a scheme of national welfare. In introducing this measure to Parliament, the Prime Minister said that part of the scheme was to be introduced immediately, and part was to be deferred until after the end of the war. A certain balance, which would therefore accrue to the fund, would be invested in Commonwealth securities, and would thus provide finance for the war effort.

The fund operated from 1st July, 1943. At its commencement, it was used to finance funeral benefits and maternity allowances. Other social and health benefits were made a charge on the fund from time to time. At present, expenditure on all benefits except repatriation and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, nor on capital works associated with the benefits.

For particulars of the income of the fund, *see* Chapter XXI, Public Finance, Part A, § 2, III., para. 6. The following table sets out expenditure from the fund during 1958–59.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES, 1958-59.**
(£'000.)

Service.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Over- seas.	Total.
<i>Social Services—</i>										
Age and Invalid Pensions ..	53,654	31,645	19,569	11,575	8,622	4,218	54	162	72	129,571
Child Endowment ..	24,293	18,369	10,339	6,308	5,198	2,502	201	318	12	67,540
Commonwealth Rehabilitation Service ..	177	203	80	97	93	20	..	..	..	670
Funeral Benefits ..	140	92	48	31	23	11	..	1	..	346
Maternity Allowances ..	1,266	1,020	546	328	267	139	11	20	2	3,599
Unemployment Benefits ..	2,422	1,224	1,154	362	655	134	1	7	..	5,959
Sickness Benefits ..	920	509	346	183	159	70	2	7	..	2,196
Special Benefits(a) ..	142	187	89	37	23	18	..	1	..	497
Widows' Pensions ..	4,275	2,545	1,800	947	800	371	7	23	9	10,777
<i>National Health Services—</i>										
Hospital Benefits ..	6,350	3,426	1,972	1,225	1,285	477	39	28	..	14,802
Medical Benefits ..	3,384	1,872	824	796	700	204	..	..	..	7,780
Medical Benefits for Pensioners ..	1,710	932	482	323	259	92	..	8	..	3,806
Nutrition of Children ..	1,190	783	475	236	182	181	3	19	..	3,069
Pharmaceutical Benefits ..	7,421	5,265	2,372	1,556	1,222	503	..	116	..	18,455
Pharmaceutical Benefits for Pensioners ..	1,138	525	394	228	176	56	..	..	..	2,517
Tuberculosis Campaign—										
Allowances ..	364	224	206	132	78	59	..	..	..	1,063
Maintenance(b) ..	1,765	1,046	799	429	558	170	..	20	..	4,787
Miscellaneous(c) ..	14	41	102	9	15	19	12	556	..	768
Rental Rebates(e) ..	..	..	..	..	25	..	..	..	..	25
Total ..	110,625	69,908	41,597	24,802	20,340	9,244	330	1,286	95	278,227

(a) Includes special benefits to migrants in reception and training centres. (b) Paid to the State Governments as a contribution towards the maintenance of institutions for the treatment of tuberculosis. (c) This item covers the cost of district laboratory services, the free supply of prophylactic materials and biological products (e.g., insulin, poliomyelitis and diphtheria prophylactics), the supply and maintenance of hearing aids for children, subsidies to voluntary organizations conducting home-nursing services, and certain costs associated with the blood transfusion services of the Australian Red Cross Society. (d) Includes an amount of £403,911 for the production of poliomyelitis vaccine. (e) Contribution to rental rebates under 1945 Commonwealth and State Housing Agreement.

Expenditure from the fund during each of the years 1954-55 to 1958-59 is shown in the following table. A graph showing expenditure from the fund from 1942-43 to 1958-59 is to be found on page 691.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES.**
(£'000.)

Service.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Social Services—</i>					
Age and Invalid Pensions ..	88,006	101,625	109,210	121,577	129,571
Child Endowment (a) ..	52,530	60,381	57,037	58,734	67,540
Commonwealth Rehabilitation Service ..	451	505	568	608	670
Funeral Benefits ..	304	319	341	325	346
Maternity Allowances ..	3,362	3,410	3,482	3,560	3,599
Unemployment, Sickness and Special Benefits ..	2,640	2,563	4,000	7,331	8,652
Widows' Pensions ..	6,862	7,723	8,862	9,832	10,777
<i>National Health Services—</i>					
Hospital Benefits ..	9,321	9,553	9,813	10,823	14,802
Medical Benefits ..	4,210	5,413	6,146	7,086	7,780
Medical Benefits for Pensioners ..	2,516	2,874	2,999	3,198	3,806
Mental Institution Benefits ..	225	..	..	..	..
Nutrition of Children ..	2,237	2,405	2,607	2,756	3,069
Pharmaceutical Benefits ..	9,445	10,380	9,924	12,911	18,455
Pharmaceutical Benefits for Pensioners ..	1,295	1,508	1,793	2,123	2,517
Tuberculosis Campaign—					
Allowances ..	1,904	1,690	1,461	1,255	1,063
Maintenance ..	3,753	4,007	4,755	4,511	4,787
Miscellaneous ..	258	510	925	855	768
Rental Rebates ..	..	..	..	..	25
Total ..	189,319	214,866	223,923	247,485	278,227

(a) See footnote to table on p. 693.

2. **Capital Expenditure.**—Particulars of Commonwealth capital expenditure on mental hospitals and the Anti-Tuberculosis campaign are given in Chapter XVII., Public Health, *see* pages 661 and 664. Grants are made to private organizations for the construction of homes for elderly people (*see* para. 4, p. 701).

3. **Administrative Expenditure.**—Information concerning the cost of administering each benefit separately is not compiled. Particulars of the cost of administering the Department of Health and the Department of Social Services may be found in Chapter XXI., Public Finance, Division A, Section 2, III., para. 5.

§ 3. Age and Invalid Pensions.

Age pensions are payable to men, 65 years of age and over, and women, 60 years of age and over, who have resided in Australia continuously for at least 20 years, which need not be immediately prior to the date of claim for a pension. Absence in a Territory of the Commonwealth, any periods of absence during which a person's home remained in Australia, and absences in certain other circumstances including, in the case of a claimant who has had at least 18 years' residence, occasional absences aggregating up to 2 years plus 6 months for every year of residence in excess of 18 years, are counted as residence.

Invalid pensions are payable to persons, 16 years of age and over, who have resided in Australia for a continuous period of five years (including certain absences), and who are permanently incapacitated for work to the extent of at least 85 per cent. or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, a total of 20 years' residence is necessary. Certain absences count as residence.

Aboriginal natives, other than those who are nomadic or primitive, are eligible for age and invalid pensions on the same conditions as other members of the community.

A pension is not payable to:—an alien (except a woman who, before marriage, was a British subject); a person who has deprived himself of property or income in order to qualify for a pension; a person in receipt of income of £429 per annum (£858 per annum for a married couple); or a person who owns property, apart from his permanent home and other exempt property, to the net value of more than £2,250 (£4,500 for a married couple). Pensioners with children may, in certain circumstances, have additional income of 10s. a week for each child under 16 years of age.

Since 8th October, 1959, the maximum rate of pension has been £247 per annum (£4 15s. a week). The wife of an invalid pensioner (or an age pensioner who is permanently incapacitated for work or permanently blind) may be granted a wife's allowance of not more than £91 per annum (£1 15s. a week). A child's allowance of £29 18s. per annum (11s. 6d. a week) is also paid to an invalid pensioner who is maintaining a child under 16 years of age. If a pensioner is maintaining more than one child, his pension is increased, subject to the means test, by £26 per annum (10s. a week) for each additional child. Supplementary assistance of £26 per annum (10s. a week) is payable to single pensioners and to married pensioners whose spouses do not receive pension or allowance, if the pensioner pays rent and is considered to be entirely dependent on his pension. At 30th June, 1959, 395,540 age pensioners (77 per cent. of all age pensioners) and 73,018 invalid pensioners (87.1 per cent. of all invalid pensioners) were receiving an annual pension of £227 10s. or more.

If a pensioner is an inmate of a benevolent home, £1 13s. a week of his pension is paid to him. The rest is paid to the home for his maintenance, except where he is a patient in an infirmary ward.

Age and invalid pensions (other than invalid pensions paid to blind persons) and allowances paid to wives of invalid pensioners (but not the child's allowance of 11s. 6d. a week) are subject to a means test. They are reduced by the amount by which a pensioner's other income exceeds £182 per annum (£3 10s. a week). Certain types of income are excepted. The main exceptions are:—Income from property; gifts or allowances from children, parents, brothers or sisters; benefits from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organizations.

The value of free board and lodging received by a pensioner is assessed as income of 12s. 6d. a week.

The annual rate of pension or allowance is further reduced by £1 for every complete £10 by which the value of property owned by a pensioner exceeds £200, and no pension is

payable if the value of the property exceeds £2,250. Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to £750) of life insurance policies, the capital value of annuities or contingent interest, and the present value of any reversionary interests.

For the purposes of the mean test, the income and property of a married person are considered to be half the total income and property of the husband and wife (unless they are legally separated or in other special circumstances). This means that the pension of a married pensioner, whether or not his spouse is a pensioner, will not be reduced because of his other income unless that income exceeds £364 per annum (£7 a week), nor will his pension be reduced because of his property unless the value of that property exceeds £400.

The following statement shows the rates of pension at 1st July, 1909, and the rates as they have been varied since that date, subject in all cases to income and property qualifications:—

MAXIMUM RATES OF PENSION PAYABLE.(a)

Date from which Operative.	Maximum Pension Payable.		Limit of In- come (in- clud- ing Pen- sion) per Annum.	Date from which Operative.	Maximum Pension Payable.		Limit of In- come (in- clud- ing Pen- sion) per Annum.
	Per Week.	Per Annum.			Per Week.	Per Annum.	
	s. d.	£ s.	£ s.		s. d.	£ s.	£ s.
1st July, 1909 ..	10 0	26 0	52 0	7th January, 1943(c) ..	26 0	67 12	100 2
12th October, 1916 ..	12 6	32 10	58 10	1st April, 1943(c) ..	26 6	68 18	101 8
1st January, 1920 ..	15 0	39 0	65 0	19th August, 1943(c) ..	27 0	70 4	102 14
13th September, 1923 ..	17 6	45 10	78 0	25th November, 1943(c) ..	26 6	68 18	101 8
8th October, 1925 ..	20 0	52 0	84 10	25th November, 1943(e) ..	27 0	70 4	102 14
23rd July, 1931 ..	17 6	45 10	78 0	5th July, 1945 ..	32 6	84 10	117 0
13th October, 1932(b) ..	15 0	39 0	71 10	13th August, 1946 ..	32 6	84 10	136 10
26th October, 1933 ..	17 6	45 10	78 0	3rd July, 1947 ..	37 6	97 10	149 10
4th July, 1935(c) ..	18 0	46 16	79 6	21st October, 1948 ..	42 6	110 10	188 10
24th September, 1936 ..	19 0	49 8	81 18	2nd November, 1950 ..	50 0	130 0	208 0
9th September, 1937 ..	20 0	52 0	84 10	1st November, 1951 ..	60 0	156 0	234 0
26th December, 1940 ..	21 0	54 12	87 2	2nd October, 1952 ..	67 6	175 10	253 10
3rd April, 1941(c) ..	21 6	55 18	88 8	29th October, 1953 ..	70 0	182 0	286 0
11th December, 1941 ..	23 6	61 2	93 12	14th October, 1954 ..	70 0	182 0	364 0
2nd April, 1942(c) ..	24 0	62 8	94 18	27th October, 1955 ..	80 0	208 0	390 0
2nd April, 1942(d) ..	25 0	65 0	97 10	24th October, 1957 ..	87 6	227 10	409 10
1st October, 1942(c) ..	25 6	66 6	98 16	8th October, 1959 ..	95 0	247 0	429 0

(a) Excludes amounts payable for wives and children of invalid pensioners and supplementary assistance.

(b) Additional pension of £6 10s. per annum (2s. 6d. a week) was payable to a pensioner with no income. Pensioners with income of less than 2s. 6d. a week were paid additional pension of 2s. 6d. less the amount of income.

(c) Variation according to change in retail price index number.

(d) Increase paid on 9th July, 1942, retrospective to 2nd April, 1942.

(e) Rate restored to £70 4s. per annum under National Security (Supplementary) Regulations 112A—Statutory Rule 315 of 1943.

NOTE.—Provision for variations according to retail price index numbers was repealed on 6th April, 1944.

During 1958–59, 54,683 age pension claims were granted, 1,114 pensioners were transferred from the invalid pension list, and 39,201 pensions expired through cancellations and deaths. The number of age pensioners at 30th June, 1959, was 513,789, of whom 165,375 (or 32 per cent.) were males, and 348,414 (or 68 per cent.) were females.

The recorded ages of the 54,683 persons (21,229 males and 33,454 females) to whom age pensions were granted during the year 1958–59 varied considerably, ranging from 8,845 at age 60 to four who were over 97; 39,626 were in the 60–69 age-group. The conjugal condition of these new pensioners was as follows:—Males—single, 2,281; married, 15,543; and widowed and divorced, 3,405; Females—single, 4,181; married, 18,418; and widowed and divorced, 10,855.

During 1958–59, 13,903 invalid pension claims were granted, 5,870 pensions ceased through cancellation or death, and 1,114 invalid pensioners were transferred to the age pension list. The number of invalid pensioners at 30th June, 1959 was 83,853, of whom 46,014 (or 55 per cent.) were males and 37,839 (or 45 per cent.) were females. Pensioners in benevolent homes have been included.

The recorded ages of the 13,903 persons (8,111 males and 5,792 females) to whom invalid pensions were granted during 1958-59 varied widely, 1,152 (8 per cent.) were in the 16-19 years age-group, 2,321 (17 per cent.) were in the 20-44 years age-group; 7,057 (51 per cent.) were in the 45-59 years age-group, 2,567 (18 per cent.) were in the 60-64 years age-group, and 806 (6 per cent.) were over 65 years of age.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 2,597; married, 4,928; and widowed and divorced, 586: Females—single, 2,010; married, 2,804; and widowed and divorced, 978.

AGE AND INVALID PENSIONS, 30th JUNE, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Age Pensions in force—</i>									
Males	66,993	37,232	28,442	14,933	12,494	4,957	105	219	165,375
Females	144,667	90,920	46,643	33,037	22,135	10,477	99	436	348,414
Persons	211,660	128,152	75,085	47,970	34,629	15,434	204	655	513,789
<i>Invalid Pensions in force—</i>									
Males	17,042	12,319	8,479	3,130	3,368	1,591	40	45	46,014
Females	15,285	8,813	6,918	2,684	2,573	1,479	24	63	37,839
Persons	32,327	21,132	15,397	5,814	5,941	3,070	64	108	83,853

The sum disbursed in age and invalid pensions in 1958-59, including the amount paid to homes for the maintenance of pensioners and allowances to wives of invalid pensioners, represented an expenditure of £13 0s. 4d. per head of population as compared with £12 9s. 7d. in 1957-58.

The following table gives details of age and invalid pensions for the years 1954-55 to 1958-59:—

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensioners at End of Year.				Total Payments. (c)	Average Fortnightly Pension as at 30th June.		
	Age.		Invalid.	Total. (b)		Age.	Invalid.	Age and Invalid Com- bined.
	No.	Rate. (a)						
1955 ..	(d) 425,556	439	No. 78,498	No. 510,186	£ 88,006,077	s. d. 134 7	s. d. 137 7	s. d. 135 1
1956 ..	(d) 446,207	449	(e) 82,775	535,226	101,625,068	153 7	156 10	154 1
1957 ..	465,781	460	88,236	554,017	109,209,972	152 10	157 8	153 7
1958(f) ..	496,757	482	77,451	574,208	121,577,042	166 11	171 9	167 7
1959 ..	513,789	490	83,853	597,642	129,571,447	166 9	173 5	167 8

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes age and invalid pensioners in benevolent homes. (c) Includes allowances and supplementary assistance. (d) Excludes age pensioners in benevolent homes. (e) Excludes invalid pensioners in benevolent homes. (f) On 30th June, 1958, 15,205 invalid pensioners in New South Wales were transferred to their correct designation of age pensioners.

§ 4. Child Endowment.

A person who is resident in Australia and has the custody, care and control of one or more children under the age of 16 years, or an approved institution of which children are inmates, shall be qualified to receive an endowment in respect of each child under 16. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the mother and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia.

Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas. Endowment is payable to aboriginal natives unless they are nomadic or primitive.

From 1st July, 1941, the rate of endowment was 5s. a week for each child in excess of one in a family, and for each child under 16 in an approved institution. The rate was increased to 7s. 6d. a week in June, 1945, and to 10s. a week in November, 1948. Since June, 1950, the rates of endowment have been 5s. a week for the first child in a family, 10s. a week for each other child in a family, and 10s. a week for each child in an institution.

The number of families receiving child endowment at 30th June, 1959, was 1,451,516, an increase of 36,138 or 2.5 per cent. during the year. The following table shows, for each State and Territory, the number of claims for child endowment in force and the number of endowed children at 30th June, 1959.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN, 30th JUNE, 1959.

State or Territory.	Family Groups.			Institutions.		Total. Endowed Children.
	Claims in force.	Endowed Children.		Number.	Endowed Child Inmates.	
		Number.	Average number per claim.			
New South Wales	543,246	1,141,012	2. 10	123	5,930	1,146,942
Victoria. . .	396,476	851,489	2. 15	99	5,041	856,530
Queensland ..	207,998	478,098	2. 30	48	3,182	481,280
South Australia ..	136,139	296,849	2. 18	48	1,459	298,308
Western Australia	106,752	241,552	2. 26	66	3,538	245,090
Tasmania ..	50,838	117,979	2. 32	19	489	118,468
Northern Territory	3,255	7,283	2. 24	18	2,668	9,951
Australian Capital Territory ..	6,576	14,774	2. 25	..	..	14,774
Overseas ..	236	480	2. 03	..	..	480
Total ..	1,451,516	3,149,516	2. 17	421	22,307	3,171,823

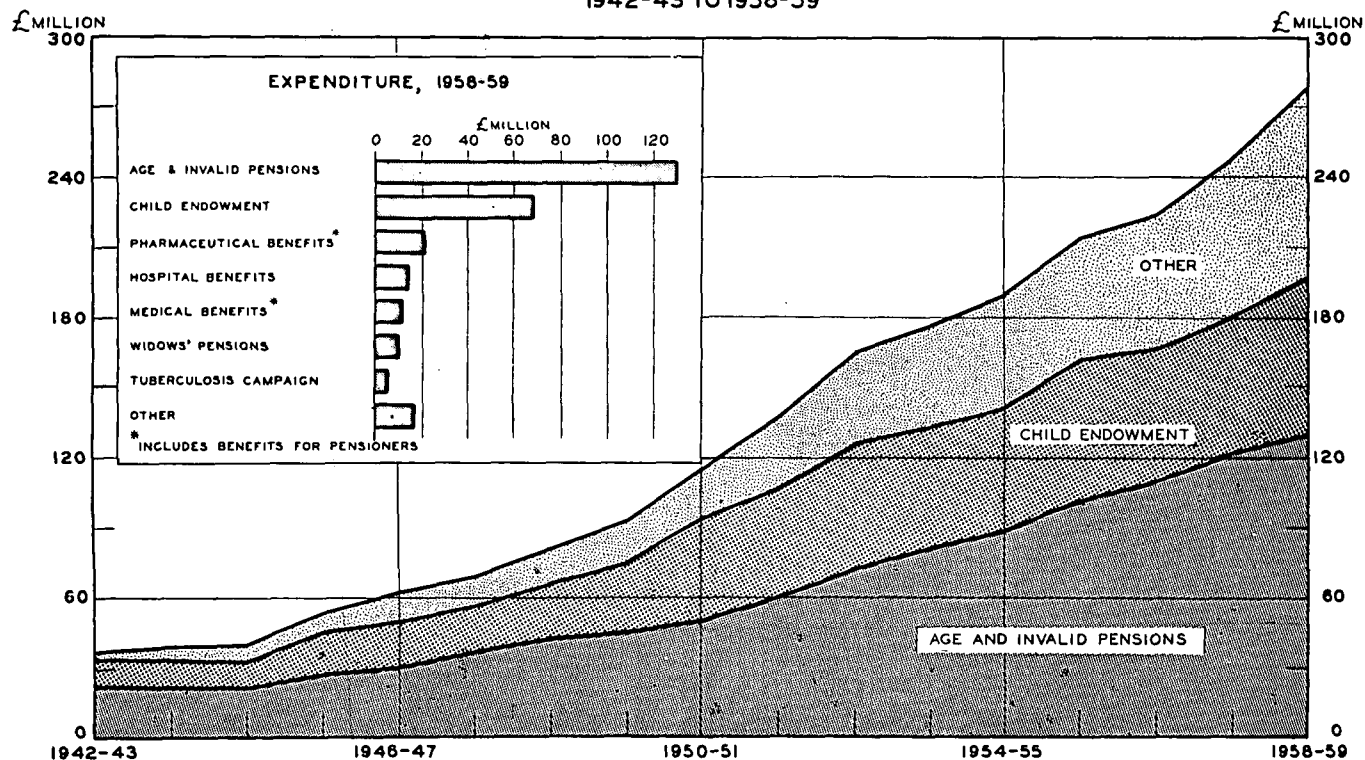
The following table shows, as at 30th June, 1959, the number of claims in force and the number of endowed children, classified according to the number of endowed children in the family:—

CHILD ENDOWMENT: ENDOWED CHILDREN IN FAMILIES, 30th JUNE, 1959.

Number of Endowed Children in Family.	Claims in Force.	Endowed Children.	Number of Endowed Children in Family.	Claims in Force.	Endowed Children.
1	517,654	517,654	10	389	3,890
2	479,856	959,712	11	107	1,177
3	264,179	792,537	12	31	372
4	116,483	465,932	13	11	143
5	44,564	222,820	14	3	42
6	17,433	104,598	17	1	17
7	6,839	47,873	21	1	21
8	2,957	23,656			
9	1,008	9,072			
			Total ..	1,451,516	3,149,516

COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES

1942-43 TO 1958-59



The following table shows the annual liability in respect of child endowment at 30th June, 1959, and the actual expenditure thereon for the year 1958-59 in each State and Territory.

CHILD ENDOWMENT: LIABILITY AND EXPENDITURE, 1958-59.

(£.)

State or Territory.	Annual Liability at 30th June, 1959.			Total Payments to Endowees and Institutions during 1958-59.
	Family Groups.	Institutions.	Total.	
New South Wales ..	22,604,114	154,180	22,758,294	24,292,358
Victoria	16,984,526	131,066	17,115,592	18,368,991
Queensland	9,726,574	82,732	9,809,306	10,339,251
South Australia ..	5,948,267	37,934	5,986,201	6,308,497
Western Australia ..	4,892,576	91,988	4,984,564	5,197,754
Tasmania	2,406,560	12,714	2,419,274	2,501,806
Northern Territory ..	147,043	69,368	216,411	200,947
Australian Capital Territory	298,636	..	298,636	317,715
Overseas	9,412	..	9,412	12,296
Total	63,017,708	579,982	63,597,690	67,539,615

The following table shows, for Australia, the number of claims, the number of endowed children and the annual liability at 30th June for each of the years from 1955 to 1959 and the actual expenditure for the years 1954-55 to 1958-59.

CHILD ENDOWMENT SUMMARY: AUSTRALIA.

At 30th June—	Family Group Claims.	Institutions.	Endowed Children.	Annual Liability for Endowment. (a)	Total Payments. (a) (b)
				£	£
1955	1,304,227	392	2,788,561	55,547,635	52,529,902
1956	1,339,807	392	2,875,664	57,349,773	60,380,685
1957	1,378,169	397	2,978,191	59,516,769	57,036,962
1958	1,415,378	415	3,073,945	61,522,656	58,733,561
1959	1,451,516	421	3,171,823	63,597,690	67,539,615

(a) A number of endowments are paid every twelve weeks. During two years out of every three, there are four such payments, but every third year there are five. Since the size of the amount causes considerable fluctuations in the figures for expenditure from year to year, figures for annual liability reflect trends in expenditure on child endowment more accurately than do figures for expenditure.

(b) Year ended 30th June.

§ 5. Commonwealth Rehabilitation Service.

The Commonwealth Rehabilitation Service has been set up to help persons who are too disabled to work or who have had to give up their employment because of sickness or injury. It aims at restoring disabled persons so they can earn a living and lead useful lives. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The benefits are available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances and persons aged 14 or 15 who, without treatment and training, would be likely to qualify for

an invalid pension on reaching the age of 16 years. Other persons may participate in the scheme upon reimbursement of the cost of treatment and training. During treatment, payment of pension or benefit continues. When vocational training begins, the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of £1 10s. a week, is paid instead. With an invalid pensioner, or a sickness, unemployment or special beneficiary, this is equivalent to and calculated in the same manner as an invalid pension. In the case of a widow pensioner, the rate is the same as that of the widows' pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connexion with treatment, training or attendance for an interview or for medical examination may also be paid. A person receiving treatment or training may be provided, free of charge, with necessary artificial replacements, surgical aids and appliances. He may also be provided with books, equipment and tools of trade, costing not more than £40. If these are retained by him, he is required to pay the cost, but payments may be made by small instalments after he has commenced in employment.

If the treatment or vocational training does not result in the trainee being able to engage in employment, he receives the pension or benefit to which he is entitled.

The numbers of persons receiving benefits who were examined, accepted, trained and placed in employment during the year 1958–59 are shown in the following table:—

COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1958–59.

Type.	Examined.	Accepted.	Completed Training.	Placed in Employment.	
				After Training.	Without Training.
Invalid pensioners	12,348	258	89	79	50
Widow pensioners	6	1	..	..	1
Unemployment and sickness beneficiaries	8,037	828	169	155	484
Recipients of Tuberculosis allowance	469	100	55	74	35
Persons aged 14–15 years ..	155	82	27	31	29
Persons provided with rehabilitation on payment of the cost ..	112	75	1	1	71
Total	21,127	1,344	341	340	670

§ 6. Funeral Benefits.

A funeral benefit of up to £10 is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension, or of a person who at the time of his death was receiving, or was a claimant for, a tuberculosis allowance, if he would otherwise have been qualified to receive an age or invalid pension. Where the cost of the funeral has been partly met by payment from a contributory funeral benefit fund of an organization other than a friendly society, funeral benefit is payable to the extent of the amount (not above £10) by which the cost of the funeral exceeded the amount paid from the fund. A funeral benefit is not payable to a person administering a contributory funeral benefit fund.

The following table shows the number of funeral benefits which were paid in each State and Territory for the years 1954–55 to 1958–59.

FUNERAL BENEFITS GRANTED, AUSTRALIA.

State.	Benefits Granted.				
	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
New South Wales	13,108	13,148	13,927	12,895	14,092
Victoria	7,921	8,216	9,262	8,740	9,290
Queensland	4,590	4,501	4,830	4,565	4,880
South Australia	2,668	2,864	2,974	2,802	3,170
Western Australia	2,045	2,335	2,366	2,358	2,352
Tasmania	1,053	918	1,002	1,097	1,111
Northern Territory	3	6	2	6	8
Australian Capital Territory ..	20	31	28	33	58
Australia	31,408	32,019	34,391	32,496	34,961

§ 7. Maternity Allowances.

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth hospital benefits scheme. They are not subject to a means test.

The allowance is £15 if the mother has no other children, £16 if she has one or two other children and £17 10s. if she has three or more other children under the age of 16 years. The amount is increased by £5 for each additional child born at a birth. An advance payment of £10 on account of a maternity allowance may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the period of intra-uterine life of the child was at least 5½ months.

A maternity allowance is payable to a woman who, at the date of giving birth to a child, is residing in Australia, is temporarily abroad or who is on board a ship proceeding from a port in Australia or an Australian Territory to another port in Australia, or another Australian Territory, or on board a ship proceeding to Australia, provided she receives no maternity benefit from the country from which she came. An alien mother may receive the allowance if she was a British subject prior to her marriage, or if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia. Aboriginal natives, other than those who are nomadic or primitive, are eligible for maternity allowances on the same conditions as other members of the community.

The following table gives details of the amount paid in each State for the years 1954-55 to 1958-59:—

MATERNITY ALLOWANCES: AMOUNT PAID IN EACH STATE.

(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Over- seas.	Total.
1955	1,250	892	513	297	261	128	7	13	1	3,362
1956	1,207	935	526	304	276	137	8	15	2	3,410
1957	1,252	949	532	319	271	131	9	17	2	3,482
1958	1,281	969	547	323	271	138	11	18	2	3,560
1959	1,266	1,020	546	328	267	139	11	20	2	3,599

The following table shows the number of maternity allowance claims paid in each State or Territory during the years 1954-55 to 1958-59:—

MATERNITY ALLOWANCES: CLAIMS PAID IN EACH STATE.

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Over- seas.	Total.
1955	76,614	55,720	31,782	18,506	16,261	7,940	481	787	88	208,179
1956	75,591	58,385	32,764	19,036	17,180	8,328	510	961	110	212,865
1957	77,387	59,648	32,882	19,929	16,853	8,166	579	1,067	106	216,617
1958	79,220	60,666	34,000	20,001	16,829	8,509	666	1,137	121	221,149
1959	80,289	63,428	34,266	20,541	16,594	8,608	682	1,276	95	225,779

The following table shows the number of claims paid in each State at the several rates of maternity allowances during the year 1958-59:—

MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE, 1958-59.

State or Territory.	Single Births.			Multiple Births.						Total Claims Paid.
	£15.	£16.	£17 10s.	Twins.			Triplets.			
				£20.	£21.	£22 10s.	£25.	£26.	£27 10s.	
New South Wales ..	25,876	37,750	15,718	231	455	245	1	7	6	80,289
Victoria.	20,109	29,925	12,608	193	370	217	4	..	2	63,428
Queensland	9,699	15,806	8,389	87	168	113	2	1	1	34,266
South Australia ..	6,177	9,655	4,452	54	121	80	..	..	2	20,541
Western Australia ..	4,619	7,995	3,770	51	110	48	..	1	..	16,594
Tasmania	2,467	3,915	2,112	26	52	36	..	..	..	8,608
Northern Territory ..	215	280	180	3	3	1	..	..	..	682
Australian Capital Territory	386	619	256	2	10	3	..	..	..	1,276
Overseas	38	47	7	1	2	..	..	..	..	95
Total	69,586	105,992	47,492	648	1,291	743	7	9	11	225,779

§ 8. Unemployment, Sickness and Special Benefits.

Unemployment and Sickness benefits are paid to men over 16 and under 65 years of age, and women over 16 and under 60 years of age who, through unemployment, sickness or accident, suffer temporary loss of regular earnings. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the Repatriation Act, or a tuberculosis allowance is ineligible to receive a benefit.

To qualify for an unemployment benefit, a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary.

To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income.

A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases, a married woman may qualify for an unemployment benefit in her own right.

Aboriginal natives, other than those who are nomadic or primitive, are eligible for these benefits on the same conditions as other members of the community.

The maximum weekly rates of benefit payable and permissible income since the 17th October, 1957, have been as follows:—

Age and Marital Status of Claimant.	Maximum Weekly Rates.			Permissible Weekly Income.		
	£	s.	d.	£	s.	d.
Unmarried person under 18 years of age	1	15	0	1	0	0
Unmarried person 18–20 years of age	2	7	6	1	0	0
All others	3	5	0	2	0	0

An additional benefit of £2 7s. 6d. a week may be paid for a dependent spouse and 10s. for one dependent child under 16 years of age. If no allowance is paid for a dependent spouse, a similar benefit may be paid for a claimant's housekeeper, provided there are one or more children under 16 years of age in the home and the woman is substantially dependent on the claimant but is not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount shown in the final column of the relevant line in the above table. For unemployment benefit purposes, the incomes of the claimant and his spouse are taken into account, unless they are permanently separated. For sickness benefit purposes, the income of the claimant only is taken into account, while any payment received from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. "Income" does not include child endowment, or other payments for children, Commonwealth hospital and pharmaceutical benefits, or a tuberculosis allowance or an amount paid in reimbursement of medical, dental or similar expenses paid. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days for which unemployment or sickness benefit is not payable. Unemployment and sickness beneficiaries are eligible to participate in the Commonwealth Rehabilitation Service under the same conditions as invalid pensioners.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, if because of age, physical or mental disability or domestic circumstances, or for any other reason, he is unable to earn a sufficient livelihood for himself and his dependants. Special benefits are also paid to migrants who are in reception centres and are awaiting their first placement in employment in Australia. During this time, they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

During the year 1958–59, special benefits were granted to 9,642 migrants at a cost of £76,975.

The following table shows the number admitted to benefit during 1958–59, the number of persons on benefit at 30th June, 1959, and the amount paid for each benefit during 1958–59.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
<i>Persons Admitted to</i>									
<i>Benefit—</i>									
Unemployment—									
Males	43,417	17,865	31,529	6,211	13,298	2,866	52	188	115,426
Females	12,154	6,636	5,434	2,516	1,932	846	16	56	29,590
Persons	55,571	24,501	36,963	8,727	15,230	3,712	68	244	145,016
Sickness—									
Males	17,113	9,803	7,775	4,036	4,125	1,621	52	113	44,638
Females	6,105	3,485	2,055	1,023	925	409	13	27	14,042
Persons	23,218	13,288	9,830	5,059	5,050	2,030	65	140	58,680
Special—									
Ordinary—									
Males	752	342	665	174	69	49	3	5	2,059
Females	607	959	177	110	81	50	..	16	2,000
Persons	1,359	1,301	842	284	150	99	3	21	4,059
Migrants—									
Persons	499	8,462	306	355	20	..	..	..	9,642
<i>Total—</i>									
Males(a)	61,282	28,010	39,969	10,421	17,492	4,536	107	306	162,123
Females(a)	18,866	11,080	7,666	3,649	2,938	1,305	29	99	45,632
Persons(b)	80,647	47,552	47,941	14,425	20,450	5,841	136	405	217,397
<i>Persons on benefit at end of year—</i>									
Unemployment—									
Males	8,554	4,041	3,447	636	2,500	502	2	9	19,691
Females	3,508	1,972	1,030	696	439	168	3	21	7,837
Persons	12,062	6,013	4,477	1,332	2,939	670	5	30	27,528
Sickness—									
Males	2,573	1,454	1,026	480	527	188	2	12	6,262
Females	992	518	353	157	122	64	1	4	2,211
Persons	3,565	1,972	1,379	637	649	252	3	16	8,473
Special—									
Ordinary—									
Males	218	108	129	53	35	17	1	..	561
Females	514	608	281	112	93	92	..	3	1,703
Persons	732	716	410	165	128	109	1	3	2,264
Migrants—									
Persons	34	495	10	14	..	..	..	..	553
<i>Total—</i>									
Males(a)	11,345	5,603	4,602	1,169	3,062	707	5	21	26,514
Females(a)	5,014	3,098	1,664	965	654	324	4	28	11,751
Persons(b)	16,393	9,196	6,276	2,148	3,716	1,031	9	49	38,818
<i>Benefits Paid—</i>									
Unemployment .. £	2,422,069	1,224,299	1,153,218	362,402	654,160	134,870	1,057	7,173	5,959,248
Sickness £	920,460	508,980	346,383	182,787	159,230	69,873	1,741	7,073	2,196,527
Special (b) £	141,950	186,997	88,900	36,998	23,337	17,669	36	648	496,535
<i>Total Benefits Paid b £</i>	<i>3,484,479</i>	<i>1,920,276</i>	<i>1,588,501</i>	<i>582,187</i>	<i>836,727</i>	<i>222,412</i>	<i>2,834</i>	<i>14,894</i>	<i>8,652,310</i>

(a) Excludes migrants in reception and training centres.

(b) Includes migrants in reception and training centres.

The following table shows the number of persons who were admitted to benefit, the average number receiving benefit at the end of each week and the amount paid for each benefit for Australia during each of the years 1954-55 to 1958-59:—

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY, AUSTRALIA.

Year.	Number Admitted to Benefits.			Average Number of Persons on Benefit at end of each week.			Amount Paid in Benefits.		
	Un-employment.	Sick-ness.	Special. (a)	Un-employment.	Sick-ness.	Special. (a)	Un-employment.	Sick-ness.	Special. (b)
							£	£	£
1954-55 ..	24,300	57,766	14,854	3,871	7,967	2,411	679,438	1,607,842	352,587
1955-56 ..	37,384	55,985	19,417	3,948	7,303	2,504	671,820	1,519,073	372,220
1956-57 ..	96,030	52,791	14,876	12,452	7,006	2,762	2,096,036	1,498,526	404,865
1957-58 ..	143,877	54,517	17,886	23,847	7,262	2,812	4,919,775	1,857,263	553,706
1958-59 ..	145,016	58,680	13,701	27,669	8,242	2,596	5,959,248	2,196,527	496,535

(a) Includes migrants in reception and training centres. (b) Includes payments to migrants in reception and training centres. (c) Does not include special variations of advances for payments in regional areas, made at the end of the year.

§ 9. Widows' Pensions.

Widows' pensions are payable to the following classes of women. The rates shown have been in operation since 13th October, 1959.

Class "A"—A widow who has the custody, care and control of one or more children under the age of 16 years—£260 per annum (£5 a week) plus £26 per annum (10s. a week) for each child after the first in her custody, care and control.

Class "B"—A widow who has no children under 16 years of age in her custody, care and control, and who is not less than 50 years of age or who, after having attained the age of 45 years, ceased to receive a Class "A" widow's pension because she no longer had the custody, care and control of a child—£214 10s. per annum (£4 2s. 6d. a week).

Class "C"—A widow who is under 50 years of age and has no children under the age of 16 years in her custody, care and control, but is in necessitous circumstances within 26 weeks after the death of her husband—£4 2s. 6d. a week for not more than 26 weeks. If at the time of her husband's death the widow is pregnant, this period will be extended until the child's birth. She may then become eligible for a class "A" widow's pension.

Class "D"—A woman whose husband has been in prison for at least six months, if she has the custody, care and control of one or more children under the age of 16 years or is not less than 50 years of age—£214 10s. per annum (£4 2s. 6d. a week).

Widow pensioners may receive supplementary assistance of £26 per annum (10s. a week) if they pay rent and are considered to be dependent entirely on their pensions.

For classes "A" and "B", the term "widow" includes a deserted wife, a divorcee and a woman whose husband is in a mental hospital. Certain "dependent females" may qualify for "A", "B" or "C" Class pensions.

The residential qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim, but this period may be reduced to one year if the widow and her husband were living permanently in Australia when he died. Certain absences count as residence.

A widow's pension is not payable to an alien, unless she was a British subject before her marriage, a woman receiving an age or invalid pension, a tuberculosis allowance, or a war widow's pension, a woman who has deprived herself of property or income in order to qualify for a pension, or a deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband. Aboriginal natives, other than those who are nomadic or primitive, are eligible for widows' pensions on the same conditions as other members of the community.

Widows' pensions are subject to a means test on income and property. They are reduced by the amount by which a pensioner's income from other sources exceeds £182 per annum (£3 10s. a week). In determining the amount of income, the income of a Class "A" widow is reduced by £26 per annum (10s. a week) less the amount of any payment other than child endowment received by her in respect of her child. If a woman in Class "A" owns property worth more than £2,250, she is disqualified from receiving pension. Property valued at less than this amount does not affect the rate of her pension. With Class "B" and Class "D" widows, the annual rate of pension is reduced by £1 for every £12 of property owned by the pensioner above £200 up to £1,750 and by £1 for every £10 of property above £1,750 up to £2,250. No pension is paid if the net value of property is more than £2,250. There is no specific means test for Class "C" pension which is paid where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions.

The pension payable to a Class "A" widow may be continued until her child reaches the age of 18 years if the child continues with full-time education at a school or university, is still dependent on the widow and is not in employment.

The number of widows' pensions by class, current at 30th June, 1959, was as follows: Class "A", 22,296; Class "B", 27,020; Class "C", 131; Class "D", 259; total, 49,706.

The amount paid in pensions during 1958–59 was £10,777,127. The following table shows details of widows' pensions paid in each State and Territory in the year 1958–59:—

WIDOWS' PENSIONS AT 30th JUNE, 1959.

State or Territory.	Pensions Current.			Average Fort-nightly Pension.	Amount paid in Pensions during 1958–59.	
	Class "A".	All Classes.	Total per 10,000 of Population.		Amount.	Per head of Population.
				£ s. d.	£	£ s. d.
New South Wales ..	8,621	19,528	52	8 11 6	4,275,055	1 2 11
Victoria ..	5,337	12,141	43	8 7 6	2,545,460	18 4
Queensland ..	4,028	8,077	56	8 12 0	1,800,063	1 5 3
South Australia ..	1,863	4,343	47	8 9 4	946,667	1 0 11
Western Australia ..	1,515	3,833	53	8 3 11	800,460	1 2 6
Tasmania ..	865	1,663	49	8 14 2	370,629	1 1 9
Northern Territory ..	18	31	15	9 6 2	7,503	7 8
Australian Capital Territory ..	49	90	20	8 15 8	22,681	10 6
Overseas ..	(a)	(a)	..	(a)	8,609	..
Total ..	22,296	49,706	49	8 10 0	10,777,127	1 1 8

(a) Included in figures for State in which pensioner is permanently domiciled.

§ 10. Reciprocal Agreements with Other Countries.

1. **New Zealand.**—An agreement between the governments of Australia and New Zealand for reciprocity in social services came into operation on 1st July, 1949.

The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence.

Residence in one country counts as residence in the other country in relation to entitlement to benefits in which a residential qualification applies.

Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country.

Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

2. **United Kingdom.**—A new reciprocal agreement on social services between the United Kingdom and Australia came into operation on 1st April, 1958, replacing the original agreement which operated from 7th January, 1954.

Under this agreement, residence in one country now counts as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies.

Australians going to the United Kingdom for permanent residence are treated in the United Kingdom as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits.

There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

B. OTHER SERVICES.

§ 1. Benevolent Homes.

1. **General.**—Numerous establishments exist for the housing and protection of persons no longer able to provide for themselves. These homes are supported by government and municipal aid, public subscriptions, bequests, etc. In many cases, relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation of all forms of charitable aid provided by benevolent institutions is difficult because these services differ considerably.

2. **Principal Institutions.**—Particulars respecting the accommodation and the number of inmates of the principal institutions were published in earlier issues of the Official Year Book (*see* No. 22, p. 485).

3. **Revenue and Expenditure.**—Details regarding revenue and expenditure for the year 1957–58 are given in the following table.

BENEVOLENT HOMES: REVENUE AND EXPENDITURE, 1957–58.
(£.)

Particulars.	N.S.W.(a)	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	Australia.
<i>Revenue—</i>							
Government Aid ..	849,290	1,140,973	447,588	110,550	194,538	290,537	3,033,476
Municipal Aid ..	..	703	..	..	..	..	703
Public Subscriptions, Legacies ..		161,480	53,274	..	692	..	
Fees(b) ..	297,890	485,346	193,850	29,844	207,209	42,037	1,546,513
Other ..		10,991	57,754	3,491	2,484	171	
<i>Total</i> ..	<i>1,147,180</i>	<i>1,799,493</i>	<i>752,466</i>	<i>143,885</i>	<i>404,923</i>	<i>332,745</i>	<i>4,580,692</i>
<i>Expenditure—</i>							
Salaries and Wages ..	566,647	675,651	355,351	93,554	251,574	216,881	2,159,658
Upkeep and Repair of Buildings ..	97,208	49,861	23,678	16,908	36,009	10,917	234,581
All Other ..	334,756	278,921	328,693	31,137	101,588	105,221	1,180,316
Capital (c) ..	148,569	715,292	22,163	2,286	15,752	..	904,062
<i>Total</i> ..	<i>1,147,180</i>	<i>1,719,725</i>	<i>729,885</i>	<i>143,885</i>	<i>404,923</i>	<i>333,019</i>	<i>4,478,617</i>

(a) These figures relate to the three State hospitals and homes only. (b) Includes Commonwealth hospital benefits and age and invalid pension receipts. (c) Includes such items as purchase of land, cost of new buildings and additions to buildings.

4. **The Aged Persons Homes Act.**—The Aged Persons Homes Act which operated from 16th December, 1954, was amended in October, 1957. The purpose of the Act is to encourage the provision of homes at which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under this Act an organization must be—

- (a) carried on otherwise than for purposes of profit or gain to the individual members; and
- (b) a religious organization, an organization the principal objects or purposes of which are charitable or benevolent, an organization of former members of the defence forces established in every State or a State branch of such an organization, or an organization approved by the Governor-General for the purposes of this Act.

An organization conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State or a local governing body established under the law of a State, is not eligible for assistance under this Act.

The Director-General of Social Services may make a grant of money to an organization as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a £2 for £1 basis with money raised by the organization, not counting money which the organization received from a governmental body or borrowed. Before a grant is made, the Director-General must be satisfied that the sum of the money expended and the money presently available for expenditure by the organization towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home. Expenditure by the Commonwealth Government was £436,236 in 1954-55, £397,994 in 1955-56, £751,136 in 1956-57, £837,895 in 1957-58 and £1,767,470 in 1958-59.

§ 2. Orphanages, Industrial Schools, etc.

1. **General.**—The methods of caring for orphans and neglected children differ extensively, some being placed in orphanages and industrial schools, while others are boarded out with their mothers or female relatives or with approved foster-mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases, employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded out live are subject to frequent departmental inspections.

2. **Principal Institutions.**—Particulars concerning the principal institutions in each State were published in earlier issues of the Official Year Book (*see* No. 22, p. 486).

3. **Children under Government Authority.**—The following table shows the expenditure by State Departments during 1957-58 in connexion with children under their control or supervision. In addition to neglected children, the figures refer to uncontrollable and convicted children who are wards of a government authority, as well as poor children whose parents obtain assistance from the government without giving up the legal right of custody.

CHILDREN UNDER GOVERNMENT AUTHORITY: COST OF MAINTENANCE, 1957-58.

Particulars.	N.S.W.	Vic.(a)	Q'land.	S.Aust.	W.Aust.	Tas.	Aust.
	£	£	£	£	£	£	£
Gross cost of children's relief	1,926,585	1,031,208	485,625	272,783	240,106	43,429	3,999,736
Receipts from parents' contributions, etc. . .	99,773	51,774	27,584	39,423	27,413	6,371	252,338
<i>Net Cost to State</i>	<i>1,826,812</i>	<i>979,434</i>	<i>458,041</i>	<i>233,360</i>	<i>212,693</i>	<i>37,058</i>	<i>3,747,398</i>

(a) Year ended 31st December, 1958.

The total expenditure on children's relief in the foregoing table shows considerable variation amongst the States owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and Tasmania, large amounts have been excluded from the total expenditure on this account owing to the difficulty of obtaining separate particulars for allowances made in respect of the dependent children only.

§ 3. Protection of Aborigines.

For the protection of the aboriginal Australian race, there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, while others only rarely come near the stations. The aboriginal race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1958-59 was as follows (figures in brackets are for the year 1957-58:—New South Wales, £204,576 (£205,028); Victoria, £25,000 (£24,999); Queensland, £726,693 (£672,798); South Australia, £365,561 (£262,657); Western Australia, £591,020 (£529,144); Northern Territory, £719,695 (£684,308); Australian Capital Territory, £4,687 (£4,166); Australia, £2,637,232 (£2,383,100).

§ 4. Lifesaving.

There are two life saving organizations in Australia, the Royal Life Saving Society—Australia, and the Surf Life Saving Association of Australia.

The objects of these organizations are the prevention of death from drowning and other forms of asphyxiation; the education of the general public in methods of life saving and resuscitation of the apparently drowned or asphyxiated; technical education in water safety; the encouragement of swimming and life saving in schools and other organizations; the encouragement of all aspects of swimming and aquatics which would assist in saving lives; and the initiation of research within the field of water safety and lifesaving.

The Royal Life Saving Society operates at lakes, rivers, bay and harbour beaches, and the Surf Life Saving Association patrols surf beaches.

Numerous certificates and medallions of proficiency in various grades are awarded.

§ 5. Royal Humane Society.

The Royal Humane Society of Australia has as its main object the granting of awards to all who with bravery, skill and perseverance risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (a) Gold Medal; (b) Silver Medal; (c) Bronze Medal; and (d) Certificate of Merit. The Clarke Medal is awarded for the outstanding case of the year, and the Rupert Wilks Trophy is awarded for the most outstanding bravery by a child under 13 years of age. About 50 awards are made annually.

§ 6. The Order of St. John.

The Priory in Australia of the Most Venerable Order of the Hospital of St. John of Jerusalem is the governing body of the various activities of the Order which comprises the St. John Ambulance Association, the St. John Ambulance Brigade and the Hospitaliers' Clubs in all States and Commonwealth Territories.

Members of the St. John Ambulance Association teach first aid to the injured, home nursing, hygiene and child welfare.

Members of the St. John Ambulance Brigade provide first aid at public functions.

The Hospitaliers' Clubs in each State undertake the collection of funds for the St. John Ophthalmic Hospital in Jerusalem, and other duties which tend to bring together all persons interested in the work of the order.

The Order of St. John maintains ambulance transport services in some States, acts as an ancillary to such services in other States, and provides technical reserves for the medical services of the Crown.

The Lifesaving Medal is awarded by the Order as warranted.

§ 7. Other Charitable Institutions.

Owing to the variety of names and functions of other charitable institutions it has been found impracticable to give detailed particulars. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not particularized include homes for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, rescue homes for females, free kindergartens, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bushfire, flood and mining accident relief funds.

CHAPTER XIX.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. Local Government Authorities.—In each State of the Commonwealth, there exists a system of local government whose powers and responsibilities are in general similar and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers.

While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., differ considerably.

The areas over which local government bodies exercise general control, numbering 907, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, municipalities and road districts; and in Tasmania as cities and municipalities. In New South Wales, some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g., the county councils. Within shires, there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories, practically the whole of Australia comes within local government jurisdiction.

The financial statistics in § 2 following are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

2. Semi-Governmental Authorities.—In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g., roads and bridges, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

In §§ 3 to 7, which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades, particulars are included of the more important of these authorities which operate within the range covered by this chapter.

3. Roads, Bridges, etc.—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of “main” and “developmental” roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Although roads and bridges constructed and maintained directly by the government or by the central road authority do not properly come under the heading of “Local Government”, they have been included in this chapter for the sake of convenience. Owing to difficulty in obtaining complete particulars of receipts and expenditure by the various local governing bodies in respect of roads under their control,

the details of receipts and expenditure given in § 4 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. In § 2, some information is given of the revenue and expenditure of local government authorities in respect of roads.

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne, the control of water supply and sewerage is in the hands of special boards, while in Adelaide and Perth these services are under the direct supervision of government departments. In most of the other cities and towns, the municipal councils or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the government.

5. **Harbours.**—The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally, volunteer or country fire brigades are represented.

7. **Other Local or Semi-Governmental Activity.**—The activities referred to above are not the only forms of local or semi-governmental undertakings. There are others, the most important being tramways and omnibus services, and electricity and gas undertakings, which are not dealt with in this chapter except to the extent that they are represented in the finances as shown in the following section. Chapter XIV., Transport and Communication, contains information on municipal transport services, and Chapter VII., Electric Power Generation and Distribution, deals with the various types of electricity undertakings in each State. In addition, particulars of municipal electricity and gas undertakings, although not shown separately, are included in the relevant sections in Chapter VI., Manufacturing Industry.

§ 2. Local Government Authorities.

1. **New South Wales.**—For purposes of local government, the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1957, the area incorporated was 230,000 square miles, or nearly three-fifths of the total area of the State.

All local government authorities in the State are subject to the general provisions of the Local Government Act.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. At 31st December, 1957, there were 49 county councils including the Sydney County Council. The Grafton and South Grafton Water Board was abolished on 1st January, 1957, and its undertaking transferred to the City of Grafton.

2. **Victoria.** Local government is established throughout the State, the various divisions being termed cities, towns, boroughs or shires. The only unincorporated areas are French Island (42,000 acres) in Westernport Bay, Julia Percy Island (650 acres), off Port Fairy, and Tower Hill (1,460 acres), adjacent to the Borough of Kororoit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

3. **Queensland.**—The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments.

4. **South Australia.**—The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

5. **Western Australia.**—In this State, local government is carried on by means of municipalities and district road boards, the whole of the State being so incorporated.

6. **Tasmania.**—The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities under separate Acts.

7. **Area, Population, Dwellings and Value of Ratable Property.**—The area, population, dwellings and value of ratable property in the incorporated areas of each State are shown for the years 1956–57 and 1957–58 in the following tables. The valuations relate to ratable property only and exclude Government and other non-ratable property, whose value in the aggregate is considerable. In this table, particulars of dwellings are in accordance with the definition used in the 1954 Census, and are compiled from information collected on the Census Schedules. For the purpose of the Census, a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide meaning and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include “week-end” and holiday dwellings and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1956-57.

Local Bodies.	Num-ber.	Area. '000 Acres.	Popula- tion. '000	Dwellings.		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No. (a)	No. (a)	£'000.	£'000.	£'000.

NEW SOUTH WALES.(b)

Metropolitan—								
Capital City	1	7	188	52,763	1,099	120,721	355,300	20,278
Other	34	702	1,776	470,664	13,464	398,429	1,614,556	88,483
Outside Metropolitan Area	201	132,647	1,569	385,517	28,128	428,980	(c)	(c)
Total	236	133,356	3,533	908,944	42,691	948,130	(c)	(c)

VICTORIA.(d)

Metropolitan—								
Capital City	1	8	90	22,348	455	(c)	190,511	9,526
Other	41	603	1,612	371,340	6,316	(c)	1,088,129	55,077
Outside Metropolitan Area(e)	163	55,500	971	267,089	20,713	(c)	853,875	42,703
Total	205	56,111	2,673	660,777	27,484	(c)	2,132,515	107,306

QUEENSLAND.(f)

Capital City	1	246	543	133,064	3,948	63,389	(c)	(c)
Outside Metropolitan Area	133	425,930	845	205,598	17,436	157,645	(c)	(c)
Total	134	426,176	1,388	338,662	21,384	221,034	(c)	(c)

SOUTH AUSTRALIA.(f)

Metropolitan—								
Capital City	1	4	28	7,454	211	40,761	83,000	4,157
Other	20	99	501	126,649	2,737	(c)	260,000	12,994
Outside Metropolitan Area	122	35,389	328	78,505	5,399	(c)	229,000	14,088
Total	143	35,492	857	212,608	8,347	(c)	572,000	31,239

WESTERN AUSTRALIA.(g)

Metropolitan—								
Capital City	1	14	100	25,460	577	1,293	(c)	4,887
Other	19	107	276	65,281	1,262	23,755	(c)	2,292
Outside Metropolitan Area	127	624,467	322	72,082	4,775	46,035	(c)	1,428
Total	147	624,588	698	162,823	6,614	71,083	(c)	8,607

TASMANIA.(f)

Metropolitan—								
Capital City	1	18	55	14,624	375	20,997	76,555	3,981
Other	2	99	45	9,333	531	9,128	41,155	1,855
Outside Metropolitan Area	46	16,661	226	54,905	4,382	34,939	129,947	6,869
Total	49	16,778	326	78,862	5,288	65,064	247,657	12,705

(a) Particulars of dwellings are as at Census of 30th June, 1954. (b) Year ended 31st December, 1956. (c) Not available. (d) Year ended 30th September, 1957. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1957. (g) Municipalities—Year ended 31st October, 1957; Road Districts—Year ended 30th June, 1957.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS AND
VALUE OF RATABLE PROPERTY, 1957-58.**

Local Bodies.	Num- ber.	Area. '000 Acres.	Popula- tion. '000	Dwellings.		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No. (a)	No. (a)	£'000.	£'000.	£'000.
NEW SOUTH WALES.(b)								
Metropolitan—								
Capital City	1	7	185	52,763	1,099	154,507	445,255	24,344
Other	34	702	1,819	470,664	13,464	460,376	1,813,835	101,314
Outside Metropolitan Area	195	146,167	1,603	385,517	28,128	471,659	(c)	(c)
Total	230	146,876	3,607	908,944	42,691	1,086,542	(c)	(c)
VICTORIA.(d)								
Metropolitan—								
Capital City	1	8	90	22,348	455	(c)	208,443	10,422
Other	41	603	1,651	371,340	6,316	(c)	1,193,886	60,133
Outside Metropolitan Area(e)	163	55,500	995	267,089	20,713	(c)	918,812	46,097
Total	205	56,111	2,736	660,777	27,484	(c)	2,321,141	116,652
QUEENSLAND.(f)								
Capital City	1	246	550	133,064	3,948	68,460	(c)	(c)
Outside Metropolitan Area	132	425,930	855	205,598	17,436	166,953	(c)	(c)
Total	133	426,176	1,405	338,662	21,384	235,413	(c)	(c)
SOUTH AUSTRALIA.(f)								
Metropolitan—								
Capital City	1	4	29	7,454	211	40,761	95,000	4,741
Other	20	100	520	126,649	2,737	(c)	293,000	14,651
Outside Metropolitan Area	122	36,374	334	78,505	5,399	(c)	293,000	14,669
Total	143	36,478	883	212,608	8,347	(c)	681,000	34,061
WESTERN AUSTRALIA.(g)								
Metropolitan—								
Capital City	1	14	100	25,460	577	1,630	(c)	5,209
Other	19	107	283	65,281	1,262	32,273	(c)	2,350
Outside Metropolitan Area	127	624,467	323	72,082	4,775	48,384	(c)	1,514
Total	147	624,588	706	162,823	6,614	82,287	(c)	9,073
TASMANIA.(f)								
Metropolitan—								
Capital City	1	18	54	14,624	375	21,732	79,329	4,091
Other	2	99	47	9,333	531	9,375	42,477	1,972
Outside Metropolitan Area	46	16,661 (h)	233	54,905	4,382	39,166	155,145	8,053
Total	49	16,778	334	78,862	5,288	70,273	276,951	14,116

(a) Particulars of dwellings are as at Census 30th June, 1954. (b) Year ended 31st December, 1957. (c) Not available. (d) Year ended 30th September, 1958. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1958. (g) Municipalities—Year ended 31st October, 1958; Road Districts—Year ended 30th June, 1958. (h) Includes 648 migratory persons not allocated to area.

8. **Finances.**—(i) *General.* The following tables show the latest available financial statistics for local government authorities. The figures relate to the years 1956-57 and 1957-58, except for New South Wales, where they relate to the years 1956 and 1957.

(ii) *Ordinary Services.* In the returns of revenue and expenditure for 1956-57 and 1957-58 in the following tables, the proceeds from loans and expenditure thereof have been

excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1956-57.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total.
Number of Local Government Authorities ..	236	205	134	143	147	49	914

REVENUE (EXCLUDING LOAN RECEIPTS). (£'000.)

<i>Taxation—</i>							
Rates (net) ..	26,988	17,404	11,564	{ 4,782	3,154	1,821	65,713
Penalties ..	163	49	..	..	..	1	213
Licences ..	435	102	91	53	55	15	751
<i>Total</i> ..	<i>27,586</i>	<i>17,555</i>	<i>11,655</i>	<i>4,835</i>	<i>3,209</i>	<i>1,837</i>	<i>66,677</i>
<i>Public Works and Services—</i>							
Sanitary and Garbage Services	3,105	1,337	2,820	49	444	102	7,857
Council Properties	2,379	(e) 2,841	533	393	826	218	7,190
Street Construction ..	1,400	1,164	..	(f) 620	241	7	3,432
Other ..	2,101	246	295	185	46	117	2,990
<i>Total</i> ..	<i>8,985</i>	<i>5,588</i>	<i>3,648</i>	<i>1,247</i>	<i>1,557</i>	<i>444</i>	<i>21,469</i>
<i>Government Grants—</i>							
Roads ..	8,177	173	1,721	{ 2,226	1,165	251	{ 16,773
Other ..	822	824	..	140	1,230	44	..
<i>Total</i> ..	<i>8,999</i>	<i>997</i>	<i>1,721</i>	<i>2,366</i>	<i>2,395</i>	<i>295</i>	<i>16,773</i>
Profits from Business Undertakings ..	..	310	1	..	32	..	343
Fees and Fines ..	..	135	{ (g) 2,598	{ 100	16	..	..
All Other ..	..	255	..	(h) 146	195	145	3,590
<i>Total Revenue</i> ..	<i>45,570</i>	<i>24,840</i>	<i>19,623</i>	<i>8,694</i>	<i>7,404</i>	<i>2,721</i>	<i>108,852</i>

EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£'000.)

General Administration ..	3,191	3,783	1,631	708	891	298	10,502
<i>Debt Services (excluding Business Undertakings)—</i>							
Interest ..	1,521	898	1,531	157	289	101	4,497
Redemption ..	3,125	1,130	2,125	540	549	166	7,635
Exchange ..	20	..	126	..	..	..	146
Other ..	..	23	8	..	..	..	31
<i>Total</i> ..	<i>4,666</i>	<i>2,051</i>	<i>3,790</i>	<i>697</i>	<i>838</i>	<i>267</i>	<i>12,309</i>
<i>Public Works and Services—</i>							
Roads, Streets and Bridges ..	22,990	8,576	5,641	5,579	2,294	1,161	46,241
Health Administration ..	920	278	..	110	195	72	..
Sanitary and Garbage Services	4,026	2,778	2,383	{ 350	510	120	{ 11,742
Street Lighting ..	1,046	463	288	165	89	73	2,124
Council Properties	5,507	(i) 4,816	1,988	795	2,091	386	15,583
Other ..	1,488	99	603	239	60	63	2,552
<i>Total</i> ..	<i>35,977</i>	<i>17,010</i>	<i>10,903</i>	<i>7,238</i>	<i>5,239</i>	<i>1,875</i>	<i>78,242</i>
<i>Grants—</i>							
Fire Brigades ..	296	382	..	84	84	46	..
Hospitals and Ambulances ..	..	..	593	{ 177	10	..	{ 3,962
Other Charities ..	113	101	..	5	..	2	..
Other ..	(j) 902	(k) 1,132	..	12	14	9	..
<i>Total</i> ..	<i>1,311</i>	<i>1,615</i>	<i>593</i>	<i>278</i>	<i>108</i>	<i>57</i>	<i>3,962</i>
All Other ..	1,258	840	2,586	..	156	200	5,040
<i>Total Expenditure</i>	<i>46,403</i>	<i>25,299</i>	<i>19,503</i>	<i>8,921</i>	<i>7,232</i>	<i>2,697</i>	<i>110,055</i>

(a) Figures for New South Wales relate to the year ended 31st December, 1956, and are on an income and expenditure basis, as distinct from those of other States which are on a cash basis. (b) Year ended 30th September, 1957. (c) Year ended 30th June, 1957. (d) Municipalities—Year ended 31st October, 1957; Road Districts—Year ended 30th June, 1957. (e) Includes £1,108,000 plant hire.

(f) Includes £93,000 reimbursement from Highways Department. (g) Includes the following reimbursements: £1,329,000 from Main Roads Works; £287,000 from other State Government Departments and £783,000 from other sources. (h) Sale of trading undertaking assets £59,000 not included. (i) Includes £1,213,000 plant and equipment. (j) To Main Roads Department.

(k) Includes £550,000 to Country Roads Board.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE 1957-58.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total.
Number of Local Government Authorities	230	205	133	143	147	49	907

REVENUE (EXCLUDING LOAN RECEIPTS). (£'000.)							
<i>Taxation—</i>							
Rates (net) ..	31,359	18,690	12,180	5,167	3,342	1,928	72,666
Penalties ..	198	73	..	..	..	1	272
Licences ..	546	127	114	52	59	16	914
<i>Total ..</i>	<i>32,103</i>	<i>18,890</i>	<i>12,294</i>	<i>5,219</i>	<i>3,401</i>	<i>1,945</i>	<i>73,852</i>
<i>Public Works and Services—</i>							
Sanitary and Garbage Services	3,441	1,438	2,959	54	466	91	8,449
Council Properties	2,721	(e) 3,504	573	447	780	210	8,235
Street Construction ..	1,709	1,144	..	(f) 656	256	19	3,784
Other ..	2,185	137	209	239	79	138	2,987
<i>Total ..</i>	<i>10,056</i>	<i>6,223</i>	<i>3,741</i>	<i>1,396</i>	<i>1,581</i>	<i>458</i>	<i>23,455</i>
<i>Government Grants—</i>							
Roads ..	9,459	140	1,507	2,339	1,267	242	14,954
Other ..	822	772	259	85	1,450	33	3,421
<i>Total ..</i>	<i>10,281</i>	<i>912</i>	<i>1,766</i>	<i>2,424</i>	<i>2,717</i>	<i>275</i>	<i>18,375</i>
<i>Profits from Business Undertakings ..</i>	<i>..</i>	<i>311</i>	<i>..</i>	<i>..</i>	<i>34</i>	<i>..</i>	<i>345</i>
<i>Fees and Fines ..</i>	<i>..</i>	<i>174</i>	<i>..</i>	<i>126</i>	<i>23</i>	<i>..</i>	<i>323</i>
<i>All Other ..</i>	<i>..</i>	<i>232</i>	(g) 3,853	148	210	170	4,613
<i>Total Revenue ..</i>	<i>52,440</i>	<i>26,742</i>	<i>21,654</i>	<i>9,313</i>	<i>7,966</i>	<i>2,848</i>	<i>120,963</i>

EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£'000.)								
<i>General Administration ..</i>	<i>3,449</i>	<i>4,129</i>	<i>1,952</i>	<i>752</i>	<i>946</i>	<i>353</i>	<i>11,581</i>	
<i>Debt Services (excluding Business Undertakings)—</i>								
Interest ..	1,762	1,108	1,653	170	341	108	5,142	
Redemption ..	3,353	1,367	2,234	539	643	197	8,333	
Exchange ..	20	..	122	..	..	..	142
Other ..	..	41	5	..	..	1	47
<i>Total ..</i>	<i>5,135</i>	<i>2,516</i>	<i>4,014</i>	<i>709</i>	<i>984</i>	<i>306</i>	<i>13,664</i>	
<i>Public Works and Services—</i>								
Roads, Streets and Bridges ..	24,792	8,833	6,421	5,656	2,362	1,217	49,281	
Health Administration ..	1,022	304	2,443	118	213	89	12,328	
Sanitary and Garbage Services ..	4,261	2,876						
Street Lighting ..	1,142	539	331	186	101	81	2,380	
Council Properties	6,061	(h) 5,327	2,047	895	2,248	381	16,959	
Other ..	1,664	155	230	162	73	66	2,350	
<i>Total ..</i>	<i>38,942</i>	<i>18,034</i>	<i>11,472</i>	<i>7,361</i>	<i>5,537</i>	<i>1,952</i>	<i>83,298</i>	
<i>Grants—</i>								
Fire Brigades ..	301	370	131	94	98	43	4,311	
Hospitals and Ambulances ..	175	111	..	172	6	..		
Other Charities ..								
Other ..	(i) 1,042	(j) 1,237	472	22	20	12		
<i>Total ..</i>	<i>1,518</i>	<i>1,718</i>	<i>603</i>	<i>293</i>	<i>124</i>	<i>55</i>	<i>4,311</i>	
<i>All Other ..</i>	<i>1,466</i>	<i>813</i>	(k) 2,829	..	160	162	<i>5,430</i>	
<i>Total Expenditure ..</i>	<i>50,510</i>	<i>27,210</i>	<i>20,870</i>	<i>9,115</i>	<i>7,751</i>	<i>2,828</i>	<i>118,284</i>	

(a) Figures for New South Wales relate to the year ended 31st December, 1957, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30th September, 1958. (c) Year ended 30th June, 1958. (d) Municipalities—Year ended 31st October, 1958. Road Districts—Year ended 30th June, 1958. (e) Includes £1,441,000 plant hire. (f) Includes £111,000 reimbursement from Highways Department. (g) Includes the following reimbursements: £1,493,000 from Main Roads Department, £295,000 from other State Government Departments, £786,000 from other sources and £1,057,000 surplus on plant hire. (h) Includes £1,268,000 plant and equipment. (i) To Main Roads Department. (j) Includes £690,000 to Country Roads Board. (k) Includes Expenditure on work done: for Main Roads Department £1,511,000; for other State Government Departments £306,000; "Other" £735,000.

The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1938-39 and 1953-54 to 1957-58:—

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE.

(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1939 ..	10,657	6,070	4,178	1,579	1,447	519	24,450
1954 ..	33,104	17,213	15,384	6,204	5,352	1,954	79,211
1955 ..	36,348	18,813	(d) 6,560	5,917	2,190	(d)	(d)
1956 ..	41,135	21,624	(d) 7,565	6,559	2,360	(d)	(d)
1957 ..	45,570	24,840	19,623	8,694	7,404	2,721	108,852
1958 ..	52,440	26,742	21,654	9,313	7,966	2,848	120,963
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1939 ..	10,790	6,193	4,335	1,558	1,489	507	24,872
1954 ..	31,880	16,912	15,120	5,859	5,115	1,944	76,830
1955 ..	35,003	18,914	(d) 6,935	5,950	2,240	(d)	(d)
1956 ..	40,938	22,215	(d) 7,828	6,804	2,452	(d)	(d)
1957 ..	46,403	25,299	19,503	8,921	7,232	2,697	110,055
1958 ..	50,510	27,210	20,870	9,115	7,751	2,828	118,284

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iii) *Business Undertakings.* The tables hereunder show, for 1956-57 and 1957-58, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, 1956-57.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
<i>Water Supply and Sewerage—</i>							
Rates ..	2,252	124	2,951	{ 2	4	676	6,792
Charges for Services and Sales of Products ..	644	..					
Other (including Grants) ..	(a) 914	9					
Total ..	3,810	133	268	..	11	99	1,301
			3,279	2	19	910	8,093
<i>Electricity and Gas—</i>							
Rates ..	321	..	10	1	..	..	332
Charges for Services and Sales of Products ..	47,704	10,614	5,568	432	570	..	64,888
Other (including Grants) ..	1,118	150	149	49	2	..	1,468
Total ..	49,143	10,764	5,727	482	572	..	66,688
<i>Railways, Tramways and Omnibuses—</i>							
Rates ..	..	..	..	..	..	..	..
Charges for Services and Sales of Products ..	..	..	3,459	..	..	..	3,459
Other (including Grants) ..	..	..	117	..	..	..	117
Total ..	..	..	3,576	..	..	..	3,576
<i>Other—</i>							
Rates ..	(b) 5	(c) ..	(d) 16	(e) ..	(f) 1	(g) ..	22
Charges for Services and Sales of Products ..	2,417	549	109	19	52	75	3,221
Other (including Grants) ..	17	16	4	24	..	3	64
Total ..	2,439	565	129	43	53	78	3,307
Grand Total ..	55,392	11,462	12,651	527	644	988	81,664

NOTE.—See next page for footnotes.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—
REVENUE AND EXPENDITURE, 1956-57.—continued.**

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
<i>Water Supply and Sewerage—</i>							
Working Expenses ..	1,578	96	1,797	2	10	330	3,813
Depreciation ..	(h) 155	6	..	..	..	..	149
Debt Charges ..	1,245	26	1,179	..	1	399	2,850
Other (including Transfers to General Revenue and Construction) ..	..	3	282	..	..	132	417
Total	2,668	131	3,258	2	11	861	6,931
<i>Electricity and Gas—</i>							
Working Expenses ..	42,767	9,519	3,897	392	458	..	57,033
Depreciation ..	(h) 1,259	412	..	..	53	..	1,724
Debt Charges ..	4,329	379	1,280	37	44	..	6,069
Other (including Transfers to General Revenue and Construction) ..	..	106	488	35	21	..	650
Total	48,355	10,416	5,665	464	576	..	65,476
<i>Railways, Tramways and Omnibuses—</i>							
Working Expenses ..	..	..	3,494	..	..	..	3,494
Depreciation ..	..	..	..	..	..	..	..
Debt Charges ..	..	..	431	..	..	..	431
Other (including Transfers to General Revenue and Construction) ..	..	..	144	..	..	..	144
Total .. ..	..	..	4,069	..	..	..	4,069
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	
Working Expenses ..	2,356	469	108	42	49	47	3,071
Depreciation ..	21	16	..	..	..	..	37
Debt Charges ..	70	73	12	..	1	10	166
Other (including Transfers to General Revenue and Construction) ..	..	..	6	2	..	16	24
Total	2,447	558	126	44	50	73	3,298
Grand Total ..	53,470	11,105	13,118	510	637	934	79,774

(a) Includes Government grant, £831,000, for part of cost of new works borne by Government.
 (b) Abattoirs, ice-works, and production of building materials. (c) Abattoirs and hydraulic power undertakings. (d) Municipal markets, amusement parks, hotels, and cinemas. (e) Quarries.
 (f) Quarries, ice-works and abattoirs. (g) Abattoirs. (h) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

NOTE.—For years to which particulars relate, see preceding table. Minus sign (—) indicates an excess of credits.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE
AND EXPENDITURE, 1957-58.
(£'000.)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
<i>Water Supply and Sewerage—</i>							
Rates	2,483	207			5	709	
Charges for Services and			3,241	..			7,637
Sales of Products ..	828	..		2	29	133	
Other (including Grants) (a)	697	10	263	..	15	185	1,170
Total	4,008	217	3,504	2	49	1,027	8,807
<i>Electricity and Gas—</i>							
Rates	360	..	1	1	..	..	362
Charges for Services and							
Sales of Products ..	52,846	11,880	5,776	469	616	..	71,587
Other (including Grants)	1,215	210	138	29	4	..	1,596
Total	54,421	12,090	5,915	499	620	..	73,545
<i>Railways, Tramways and Omnibuses—</i>							
Rates .. .. .	..	..	32	..	..	..	32
Charges for Services and							
Sales of Products ..	..	..	3,439	..	..	..	3,439
Other (including Grants)	..	..	127	..	..	..	127
Total .. .. .	..	..	3,598	..	..	..	3,598
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	
Rates	4	..	16	..	..	..	20
Charges for Services and							
Sales of Products ..	3,069	704	138	47	33	121	4,112
Other (including Grants)	24	10	4	..	..	3	41
Total	3,097	714	158	47	33	124	4,173
Grand Total	61,526	13,021	13,175	548	702	1,151	90,123
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
<i>Water Supply and Sewerage—</i>							
Working Expenses ..	1,844	167	1,813	2	40	470	4,336
Depreciation	(h) 155	12	..	..	..	143	..
Debt Charges	1,381	31	1,265	..	4	450	3,311
Other (including Transfers to General Revenue and Construction) ..	..	1	322	..	..	92	415
Total	3,070	211	3,400	2	44	1,012	7,739
<i>Electricity and Gas—</i>							
Working Expenses ..	45,869	10,586	3,943	437	492	..	61,327
Depreciation	(h) 1,092	337	..	..	57	..	1,486
Debt Charges	5,050	439	1,598	44	53	..	7,184
Other (including Transfers to General Revenue and Construction) ..	..	278	303	33	22	..	636
Total	52,011	11,640	5,844	514	624	..	70,633
<i>Railways, Tramways and Omnibuses—</i>							
Working Expenses ..	..	..	3,494	..	..	..	3,494
Depreciation .. ..	..	..	..	..	..	..	..
Debt Charges .. ..	..	..	453	..	..	..	453
Other (including Transfers to General Revenue and Construction) ..	..	..	158	..	..	..	158
Total .. .. .	..	..	4,105	..	..	..	4,105
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	
Working Expenses ..	2,826	564	154	42	34	74	3,694
Depreciation	3	28	..	..	..	..	31
Debt Charges	97	67	15	..	2	14	195
Other (including Transfers to General Revenue and Construction) ..	..	31	15	3	..	23	72
Total	2,926	690	184	45	36	111	3,992
Grand Total	58,007	12,541	13,533	561	704	1,123	86,469

(a) Includes Government grant, £614,000, for part of cost of new works borne by Government.
(b) Abattoirs, ice-works, and production of building materials. (c) Abattoirs and hydraulic power undertakings. (d) Municipal markets, amusement parks, hotels, and cinemas. (e) Quarries.

(f) Quarries, ice-works and abattoirs. (g) Abattoirs. (h) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

NOTE.—For years to which particulars relate, see following table. Minus sign (—) indicates an excess of credits.

The next table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1938–39 and 1953–54 to 1957–58.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE.
(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1939 ..	6,405	1,814	3,374	113	963	528	13,197
1954 ..	41,367	8,189	13,108	504	516	1,366	65,050
1955 ..	46,972	8,770	(d)	547	569	1,296	(d)
1956 ..	51,312	9,995	(d)	592	628	833	(d)
1957 ..	55,392	11,462	12,651	527	644	988	81,664
1958 ..	61,526	13,021	13,175	548	702	1,151	90,123
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1939 ..	5,556	1,803	3,256	123	935	514	12,187
1954 ..	38,426	7,971	13,366	474	520	1,310	62,067
1955 ..	43,616	8,611	(d)	558	547	1,286	(d)
1956 ..	48,442	9,800	(d)	576	627	846	(d)
1957 ..	53,470	11,105	13,118	510	637	934	79,774
1958 ..	58,007	12,541	13,533	561	704	1,123	86,469

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iv) *Loan Expenditure.* The tables below show particulars for 1956–57 and 1957–58 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, 1956-57.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
ORDINARY SERVICES.							
Roads, Bridges, Streets, Footpaths, Drainage and Sewerage	2,607	1,780	3,046	731	647	227	9,038
Council Properties	2,265	1,341	666	165	524	208	6,154
Parks, Gardens and Recreational Reserves	517	252		3	133	80	
Other	(a) 468	338	884	25	30	65	1,810
Total	5,857	3,711	4,596	924	1,334	580	17,002
BUSINESS UNDERTAKINGS.							
Water Supply	1,429	121	2,054	..	12	761	5,297
Sewerage	920	..	..	..	..
Electricity and Gas	6,948	1,004	3,072	58	24	..	11,106
Railways, Tramways and Omnibuses .. ..	..	..	214	..	..	..	214
Abattoirs	359	175	..	..	..	..	534
Other .. ..	..	..	8	..	..	..	8
Total	9,656	1,300	5,348	58	36	761	17,159
Grand Total	15,513	5,011	9,944	982	1,370	1,341	34,161

(a) Includes advances for homes, £95,000.

NOTE.—For years to which particulars relate, see preceding table.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, 1957-58.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
ORDINARY SERVICES.							
Roads, Bridges, Streets, Footpaths, Drainage and Sewerage	2,716	1,893	3,735	913	700	228	10,245
Council Properties	2,279	1,729	670	128	652	175	5,633
Parks, Gardens and Recrea- tional Reserves	316	304	152	27	186	51	1,036
Other	(a) 333	289	1,056	9	42	1	1,730
<i>Total</i>	<i>5,644</i>	<i>4,215</i>	<i>5,673</i>	<i>1,077</i>	<i>1,580</i>	<i>455</i>	<i>18,644</i>
BUSINESS UNDERTAKINGS.							
Water Supply	1,495	90	2,277	..	..	1,163	6,181
Sewerage	1,086	..	..	..	70		..
Electricity and Gas	8,103	1,639	2,609	49	89	..	12,489
Railways, Tramways and Omnibuses .. .. .	..	..	96	..	..	..	96
Abattoirs	340	67	..	..	..	..	407
Other .. .. .	..	..	40	50	..	..	90
<i>Total</i>	<i>11,024</i>	<i>1,796</i>	<i>5,022</i>	<i>99</i>	<i>159</i>	<i>1,163</i>	<i>19,263</i>
Grand Total	16,668	6,011	10,695	1,176	1,739	1,618	37,907

(a) Includes advances for homes, £71,000.

NOTE.—For years to which particulars relate see following table.

The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1938-39 and 1953-54 to 1957-58:—

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE.
(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
ORDINARY SERVICES.							
1939 ..	1,758	663	1,317	43	117	39	3,937
1954 ..	4,121	1,747	2,969	785	839	237	10,698
1955 ..	4,313	2,511	(d)	959	1,121	404	(d)
1956 ..	6,100	3,088	(d)	1,112	1,486	477	(d)
1957 ..	5,857	3,711	4,596	924	1,334	580	17,002
1958 ..	5,644	4,215	5,673	1,077	1,580	455	18,644
BUSINESS UNDERTAKINGS.							
1939 ..	1,481	452	942	10	76	233	3,194
1954 ..	10,436	1,408	4,920	62	78	642	17,546
1955 ..	9,037	1,282	(d)	45	90	800	(d)
1956 ..	9,569	1,140	(d)	25	49	888	(d)
1957 ..	9,656	1,300	5,348	58	36	761	17,159
1958 ..	11,024	1,796	5,022	99	159	1,163	19,263

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—
Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

§ 3. Local and Semi-Governmental Authorities' Debt.

1. **General.**—Statistics of local and semi-governmental debt for the years 1938–39 and 1954–55 to 1957–58 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services:—

New South Wales. Water Supply, Sewerage and Drainage, Electricity Supply, Fire Brigades, and Banking. County Councils are included among these authorities.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, Housing, and Miscellaneous.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, and Miscellaneous.

Western Australia. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Housing and University of Western Australia.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, and Housing.

A detailed list of the authorities included is shown in *Finance, Part I.—Public and Private Finance*, Bulletin No. 50, 1958–59.

2. **Local and Semi-Governmental Authorities' Debt.**—The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local and semi-governmental authorities for the year ended 30th June, 1958. For greater detail, see *Finance, Part I.—Public and Private Finance*, Bulletin No. 50, 1958–59.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE 1957-58.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
LOCAL GOVERNMENT AUTHORITIES.							
<i>New Money Loan Raisings—</i>							
From Government ..	152	111	930	397	19	166	1,775
From Public ..	8,474	5,286	8,908	927	2,004	1,846	27,445
Total ..	8,626	5,397	9,838	1,324	2,023	2,012	29,220
<i>Funds Provided for Redemption—</i>							
Government Loans ..	44	17	1,042	454	11	10	1,578
Loans due to Public ..	4,229	1,866	1,778	177	669	401	9,120
Total ..	4,273	1,883	2,820	631	680	411	10,698
<i>Accumulated Sinking Fund Balance ..</i>	5,448	2,995	5,033	..	59	175	13,710
<i>Debt—</i>							
Due to Government ..	1,953	630	13,656	1,130	245	308	17,922
Due to Banks (Net Overdraft) ..	31	416	..	..	1	..	448
Due to Public Creditor(a) ..	66,601	33,200	70,839	3,981	8,326	9,788	192,735
Total(a) ..	68,585	34,246	84,495	5,111	8,572	10,096	211,105
Maturing Overseas(a)(b) ..	1,812	..	2,455	..	..	..	4,267
Annual Interest Payable(a) ..	(c)	1,586	3,889	216	412	472	(c)

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN
RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE 1957-58—continued.**
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
SEMI-GOVERNMENTAL AND PUBLIC AUTHORITIES.							
<i>New Money Loan Raisings—</i>							
From Government	12,451	16,139	7,442	10,233	3,881	6,802	56,948
From Public	21,536	35,960	9,250	3,349	2,479	1,350	73,924
<i>Total</i>	<i>33,987</i>	<i>52,099</i>	<i>16,692</i>	<i>13,582</i>	<i>6,360</i>	<i>8,152</i>	<i>130,872</i>
<i>Funds Provided for Redemption—</i>							
Government Loans	863	3,678	320	988	473	507	6,829
Loans due to Public	5,216	5,245	2,892	788	647	253	15,041
<i>Total</i>	<i>6,079</i>	<i>8,923</i>	<i>3,212</i>	<i>1,776</i>	<i>1,120</i>	<i>760</i>	<i>21,870</i>
Accumulated Sinking Fund Balance	21,153	9,217	3,213	979	494	444	35,500
<i>Debt—</i>							
Due to Government	144,608	173,775	14,833	100,970	36,648	71,983	542,817
Due to Banks (Net Overdraft)	2,262	2,910	683	43	2	..	5,900
Due to Public Creditor(a)	225,519	354,572	61,350	25,213	15,523	13,397	695,574
<i>Total(a)</i>	<i>372,389</i>	<i>531,257</i>	<i>76,866</i>	<i>126,226</i>	<i>52,173</i>	<i>85,380</i>	<i>1,244,291</i>
Maturing Overseas(a)(b)	5,000	4,337	..	..	..	..	9,337
Annual Interest Payable(a)	(c)	22,075	3,555	5,139	2,380	3,490	(c)

(a) Includes debt or interest payable in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of \$4.8665 to 1£.
(b) Included in debt figures above. (c) Not available.

In this and the following tables, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

In the following table, a summary is given of new money loan raisings, provisions for the redemption of debt and debt outstanding of local and semi-governmental authorities for the years 1938-39 and 1954-55 to 1957-58.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT.

(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.
LOCAL GOVERNMENT AUTHORITIES.					
<i>New Money Loan Raisings—</i>					
From Government	371	3,413	2,233	1,624	1,775
From Public	7,060	24,352	22,160	25,046	27,445
<i>Total</i>	<i>7,431</i>	<i>27,765</i>	<i>24,393</i>	<i>26,670</i>	<i>29,220</i>
<i>Funds provided for Redemption—</i>					
Government Loans	2,141	1,477	1,555	1,569	1,578
Loans due to Public	2,995	8,151	8,597	9,222	9,120
<i>Total</i>	<i>5,136</i>	<i>9,628</i>	<i>10,152</i>	<i>10,791</i>	<i>10,698</i>
Accumulated Sinking Fund Balance	(a)	11,493	11,955	12,865	13,710
<i>Debt—</i>					
Due to Government	13,207	17,265	17,907	17,753	17,922
Due to Banks (Net Overdraft) ..	1,544	362	948	637	448
Due to Public Creditor(b) ..	76,582	158,350	169,891	182,834	192,735
<i>Total(b)</i>	<i>91,333</i>	<i>175,977</i>	<i>188,746</i>	<i>201,224</i>	<i>211,105</i>
Maturing Overseas(b)(c)	17,893	4,499	4,431	4,349	4,267

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.

<i>New Money Loan Raisings—</i>					
From Government	1,524	51,234	53,482	51,644	56,948
From Public	7,038	64,555	58,674	62,777	73,924
<i>Total</i>	<i>8,562</i>	<i>115,789</i>	<i>112,156</i>	<i>114,421</i>	<i>130,872</i>
<i>Funds provided for Redemption—</i>					
Government Loans	699	3,328	6,866	3,978	6,829
Loans due to Public	1,146	5,984	7,552	10,496	15,041
<i>Total</i>	<i>1,845</i>	<i>9,312</i>	<i>14,418</i>	<i>14,474</i>	<i>21,870</i>
Accumulated Sinking Fund Balance	(a)	22,306	25,311	29,702	35,500
<i>Debt—</i>					
Due to Government	(d)44,817	401,080	446,112	492,929	542,817
Due to Banks (net Overdraft) ..	2,006	2,195	9,994	6,402	5,900
Due to Public Creditor(b) ..	118,506	503,515	560,074	623,744	695,574
<i>Total(b)</i>	<i>d165,329</i>	<i>906,790</i>	<i>1,016,180</i>	<i>1,123,075</i>	<i>1,244,291</i>
Maturing Overseas(b)(c)	12,088	13,616	13,556	12,112	9,337

(a) Not available. (b) Includes debt in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1. (c) Included in debt figures above. (d) Approximate only.

§ 4. Roads and Bridges.

1. **Commonwealth Government Grants.**—The following table shows the allocation to the States, under the several Commonwealth Aid Roads Acts for road construction, maintenance, repair and other works connected with transport for each of the years 1938-39 and 1954-55 to 1958-59, and to the Commonwealth for expenditure on the construction and maintenance of strategic roads and for the promotion of road safety practices for each of the years 1954-55 to 1958-59. See also Chapter XXI.—Public Finance, and *Finance* bulletins.

ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE COMMONWEALTH AID ROAD ACTS.

(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Total.
1939 ..	1,199	747	815	474	819	213	..	4,267
1955 ..	5,893	3,771	4,125	2,409	4,190	1,073	900	22,361
1956 ..	7,282	4,660	5,097	2,976	5,178	1,326	950	27,469
1957 ..	8,587	5,495	6,009	3,509	6,105	1,563	950	32,218
1958 ..	9,495	6,264	6,585	3,879	6,658	1,733	1,000	35,614
1959 ..	9,930	6,543	6,890	4,056	6,967	1,813	1,000	37,199

(a) Allocation for expenditure on the construction and maintenance of strategic roads and the promotion of road safety practices.

2. New South Wales.—(i) *General.* A central road authority, known as the Main Roads Board, was created by legislation in 1925 for the purpose of providing improved and uniform standards of construction, reconstruction and maintenance of the principal roads of the State and to administer government subsidies for works on those roads. Subsequently, the Main Roads administration was reorganized as a separate department under the control of a Commissioner. The activities of the Department of Main Roads embrace works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

Public roads, except those within the City of Sydney, may be proclaimed as main roads on the recommendation of the Commissioner for Main Roads, who takes into consideration the representations made by the councils concerned, availability of funds for construction and maintenance purposes, and the value of the roads as connecting links between centres of population or business. The classes of main roads are (i) the State Highways which form the principal avenues of road communication throughout the State and connect with similar avenues in other States; (ii) Trunk Roads, which, with the State Highways, form the framework of a general system of intercommunication throughout the State; (iii) Ordinary Main Roads, which provide a network of roads connecting towns and important centres of population with the State Highways and Trunk Roads and with each other. In addition to the Main Roads, there are also (i) Secondary Roads (in the County of Cumberland), which carry a substantial volume of through traffic and thereby relieve neighbouring main roads of traffic and (ii) Developmental Roads, which help to develop country districts.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is paid from the funds of the Department of Main Roads. The Councils contribute towards the cost at the rate of $\frac{1}{4}$ d. in the £ on the unimproved value of ratable property. The rate payable in respect of lands used principally for primary production is one-half the rate levied on other lands. In country districts, the Department meets the full cost of road and bridge works on state highways, the full cost of bridge works and three-quarters of the cost of road works on trunk roads, and three-quarters of the cost of bridge works and two-thirds of the cost of road works on main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads meets half the cost of works on secondary roads.

(ii) *Length of Roads.* (a) *Proclaimed Roads.* The total length of proclaimed roads in New South Wales at 30th June, 1959, was 25,296 miles classified as:—State highways, 6,504 miles; trunk roads, 4,180 miles; ordinary main roads, 11,739 miles; secondary roads, 86 miles; and developmental roads, 2,787 miles.

During 1958–59, 118 miles of new developmental roads were proclaimed and 29 miles were removed from the list of proclaimed developmental roads. 21 miles of proclaimed main roads were removed from the list during 1958–59.

The length of main and secondary roads maintained by the Department of Main Roads at 30th June, 1959, was 5,469 miles (24 per cent.), while the length maintained by councils was 17,040 miles (76 per cent.). The proportions of main roads maintained by the Department and councils respectively were:—State highways, 58 per cent., 42 per cent; trunk and ordinary main roads, 11 per cent., 89 per cent. Secondary roads were maintained wholly by councils. In the County of Cumberland (the metropolis and adjoining areas), the Department maintained 56 per cent. of the roads (524 miles).

(b) *Composition of Roads.* In 1957, the total length of all roads in New South Wales was estimated at 127,097 miles. The lengths of roads, according to their composition or nature, were as follows:—cement concrete, 412 miles; asphaltic concrete, 223 miles; tar or bituminous macadam, 5,698 miles; surface water-bound macadam, 7,949 miles; water-bound macadam, 1,458 miles; gravel or crushed rock, 42,522 miles; formed only, 27,604 miles; cleared or natural surface only, 41,231 miles.

(iii) *Main Roads Department.* (a) *General.* Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act 1951.

The Department's proposals for the development of the main roads system in Newcastle and the surrounding districts have been largely incorporated in the Northumberland County District Planning Scheme and some sections of the system have been constructed.

With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority.

During 1958–59, 44 new bridges were constructed. In addition, 54 concrete box culverts having a waterway width of 20 feet or more were completed. Major bridge works under construction include steel and/or concrete bridges over Double Creek on the Prince's Highway (length 450 feet); over the Cook's River at Tempe on the Prince's Highway (length 300 feet); over the Murray River at Albury on the Hume Highway (length 300 feet); over the Hastings River near Blackman's Point on the Pacific Highway (length 1,500 feet); over the Mehi River at Moree on the Gwydir Highway (length 374 feet); over the Parramatta River at Gladesville (2,000 feet); over the Murray River at Jingellic (length 514 feet); over the Goulburn River at Sandy Hollow (length 576 feet); over the Murray River at Tintaldra (length 420 feet); and over the Mann River at Jackadgery (length 939 feet).

(b) *Revenue and Expenditure.* The funds of the Department of Main Roads are derived principally from (1) motor vehicle taxation; (2) charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act 1958; (3) grants under Commonwealth Aid Roads Acts (see Chapter XXI.—Public Finance); (4) other grants from the State or Commonwealth Governments and (5) proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act 1924–58. The State Government also makes repayable advances for Main Roads Department works.

Revenue and expenditure for the four years 1955–56 to 1958–59 compared with the year 1938–39 are shown below.

**DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES:
REVENUE AND EXPENDITURE.**

(£.)

Item.	1938–39.	1955–56.	1956–57.	1957–58.	1958–59.
REVENUE.(a)					
Motor Vehicle Taxation, Registration and Licence Fees	2,018,556	7,675,281	7,944,583	8,444,589	10,727,126
Commonwealth Aid Roads Act	1,176,039	4,646,788	5,165,020	6,468,726	6,926,549
State and Commonwealth Grants .. ..	..	..	..	453,750	357,500
Contributions by Other Departments and Bodies	13,549	413,120	275,453	305,153	240,412
Councils' Contributions	250,679	878,621	971,198	1,119,731	1,384,927
Other	54,782	—293	27,618	45,296	46,204
Total	3,513,605	13,613,517	14,383,872	16,837,245	19,682,718

NOTE.—See next page for footnotes.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE AND
EXPENDITURE—*continued.*
(£.)

Item.	1938-39.	1955-56.	1956-57.	1957-58.	1958-59.
EXPENDITURE.(b)					
Roads and Bridges—					
Construction	1,736,898	7,157,110	7,813,332	9,371,017	10,444,734
Maintenance	1,519,929	5,946,283	6,174,524	6,096,227	5,908,649
Administration	100,583	515,715	562,056	614,098	705,745
Interest, Exchange, etc., on Debt ..	152,469	151,652	171,242	184,067	190,789
Other(c)	914	166,854	127,790	295,895	276,270
Total	3,510,793	13,937,614	14,848,944	16,561,304	17,526,187

(a) Excludes repayable advances by the State Government (£302,643 in 1938-39, £150,000 in 1955-56, £448,073 in 1956-57 and £150,000 in 1957-58) and transfer from Sydney Harbour Bridge Reserve Account for Expressway construction (£100,000 in 1958-59). Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption (£200,591 in 1938-39, £36,299 in 1955-56, £38,677 in 1956-57, £39,966 in 1957-58 and £340,790 in 1958-59). (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because of the depreciation charge for them is reflected each year in "Roads and Bridges".

The figures shown above represent the aggregate revenue and expenditure of five funds—the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

The total expenditure on roads, streets and bridges in the State by all authorities during the years 1938-39 and 1954-55 to 1958-59 was, respectively, £8,891,000, £26,878,000, £29,851,000, £33,773,000, £37,100,000 and £39,554,000. These figures are approximate and they include expenditure on construction, maintenance and direct administration, but not on debt charges. Expenditure on the Sydney Harbour Bridge is not included.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway and two railway tracks and there is also a footway on each side. The capital cost of the bridge to 30th June, 1959, was £9,578,006, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, over £7,900,000, is repayable from toll income. The accumulated balance of the Bridge Account at 30th June, 1959, showed a deficiency of £94,421, after the transfer of sums totalling £1,895,000 to a reserve account. Annual income, after a decline to less than £300,000 during the 1939-45 War, has risen from about £400,000 in 1938-39 to over £1,081,000 in 1958-59, while expenditure over the same period has varied between £424,000 and £750,000. In 1958-59, income included road tolls, £891,985, railway passenger tolls, £147,825, and tram and omnibus passenger tolls, £15,840. Expenditure amounted to £750,312, including interest, exchange, flotation expenses, etc., £313,820, sinking fund, £106,600, maintenance £140,057, and major improvements (including conversion of tram tracks to roadway), £55,550. In addition to the amount of £55,550 charged to the Harbour Bridge Revenue Account in 1958-59, £898,602 was spent from accumulated surpluses (including £260,000 from the Harbour Bridge Reserve Account). During 1958-59, 25,705,000 rail travellers, 15,344,000 tram and omnibus travellers, and 39,012,000 road travellers in 25,002,000 road vehicles crossed the bridge, contributing, respectively, 14 per cent., 2 per cent. and 84 per cent. of the total toll revenue.

3. *Victoria.*—(i) *General.* With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine the main roads, State highways, tourists' roads, etc., to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations in existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Victoria at 30th June, 1959, was 14,392 miles, classified as follows:—State highways, 3,845 miles; main roads, 9,754 miles; tourist roads, 415 miles; forest roads, 378 miles. The length of the surface treated (black) or higher type of pavements included in the foregoing mileage was 9,770 miles or 68 per cent. of the total.

(b) *Composition of Roads.* It is estimated that, in addition to the 14,392 miles of classified roads as above, there were approximately 87,000 miles of unclassified roads at 30th June, 1959. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1957) provides the following information:—Wood or stone, 55 miles; portland cement concrete, 158 miles; asphaltic concrete and sheet asphalt, 420 miles; tar or bitumen surface seal, 15,114 miles; water-bound macadam, gravel, sand and hard loam pavements, 31,954 miles; formed only, 23,873 miles; not formed, 29,778 miles; total, 101,352 miles.

(iii) *Country Roads Board.* (a) *General.* During 1958–59, 1,536 miles of declared roads under the Board's control were treated with bitumen. In addition, 669 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1958–59 was 2,298 miles (including 93 miles for other authorities). Of the work on the roads under the Board's control in 1958–59, 510 miles related to State highways.

During 1958–59, 235 bridge projects with the total value of £1,460,000 were initiated. Of these, 191, costing £880,000, were under municipal supervision.

(b) *Receipts and Payments.* The funds of the Country Roads Board are derived principally from motor registration fees, two thirds of all money received by way of owners' certificates, one half of drivers' licence fees, fines, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, road charges under the Commercial Goods Vehicles Act and repayments by municipalities. In addition, loans have been authorized from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During the year ended 30th June, 1959, loan receipts and payments each amounted to £75,834, and expenditure included £53,171 for restoration of flood and bush fire damage. The total loan expenditure to 30th June, 1959, was £14,221,093. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30th June, 1937, the total expenditure at that date being £6,425,758.

Total receipts and payments during each of the years 1938–39 and 1955–56 to 1958–59 are shown below:—

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (a)	1955–56.	1956–57.	1957–58.	1958–59.
RECEIPTS.					
Motor Vehicle Registration Fees (b)	1,690,962	4,984,855	6,211,564	8,013,268	8,340,079
Drivers' Licence Fees (b) ..	..	199,852	207,892	219,342	284,994
Municipalities' Payments ..	318,878	501,110	530,418	560,092	685,773
Commonwealth Aid Roads Acts (c) ..	716,019	4,430,575	5,247,438	6,158,907	6,870,975
Loans from State Government ..	57,972	1,092,950	404,679	402,822	75,834
Advance from Public Account ..	..	500,000	..	..	..
Stores and Materials ..	233,104	..	..	..	..
Hire of Plant ..	53,724	..	..	..	..
Commonwealth-State Contribution for restoration of flood damage ..	..	..	236,641	460,452	53,171
Road Charges—Commercial Goods Vehicles Act ..	..	215,789	1,314,784	1,529,236	1,873,424
Other ..	117,341	24,809	28,173	37,114	30,263
Total ..	3,188,000	11,949,940	14,181,589	17,381,233	18,214,513

NOTE.—See next page for footnotes.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS—*continued.*
(£.)

Item.	1938-39. (a)	1955-56.	1956-57.	1957-58.	1958-59.
PAYMENTS.					
Construction and Maintenance of					
Roads and Bridges—					
State Highways	453,708	3,495,182	4,079,366	4,988,708	5,357,732
Main Roads	1,027,210	3,889,291	3,921,041	5,428,679	5,536,431
Tourist Roads	77,694	342,839	285,127	457,735	453,877
Forest Roads .. ..	..	144,684	116,388	127,775	190,652
Unclassified Roads	468,122	1,947,134	2,508,782	3,615,378	3,371,433
Roads adjoining Commonwealth					
Properties	13,321	..	..	..	..
Other	(d) 58,729	50,484	72,895	107,469	111,478
Relief to Municipalities	240,170	..	..	..	..
Plant, Stores and Materials	310,332	627,011	620,626	1,053,254	712,974
Interest, Debt Redemption, etc.	427,445	745,873	792,321	831,077	862,583
Repayment of Advance .. ..	..	..	500,000	..	..
Statutory Payment to Tourists' Resorts Fund	230,125	72,109	76,284	108,780	144,770
Administration Expenditure and Other		717,265	882,435	860,760	1,004,542
Total		3,306,856	12,031,872	13,855,265	17,579,615
				17,579,615	17,746,472

(a) Figures for 1938-39 are not directly comparable with those of succeeding years owing to a change in the method of compilation adopted by the Country Roads Board. (b) After costs of collection. Since 1950, one half of the drivers' licence fees has been credited to the funds of the Country Roads Board while the remaining half has been credited to the Municipalities Assistance Fund. (c) Excludes portion of Commonwealth Aid Roads Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (d) Includes £54,662 expenditure on unemployment relief works.

(iv) *Level Crossings.* In 1954-55, the Level Crossings Fund was created under the Country Roads and Level Crossings Funds' Act 1954 to finance (a) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings, (b) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings and (c) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one third of all moneys received by way of additional motor registration fees (owner's certificates) and money provided under any other Act. The amount available for expenditure in 1958-59 was £677,877 comprising receipts from owners' certificates, £268,815, and the balance brought forward from 1957-58, £409,062. Expenditure from the Fund amounted to £327,768 of which £260,798 was incurred by the Railways Department and the balance by the Country Roads Board.

4. *Queensland.*—(i) *General.* Under the Main Roads Act 1920, a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925, the Board was abolished and its powers conferred upon a single Commissioner. The Main Roads Commission was constituted a Department under the name of the Department of Main Roads in February, 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, farmers' and tourist roads and tourist tracks, and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases, construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Queensland at 30th June, 1958, was 20,900 miles, comprising State highways, 8,254 miles; main roads, 10,553 miles; developmental roads, 235 miles; secondary roads, 646 miles; mining access roads, 606 miles; farmers' roads, 308 miles; tourist roads, 297 miles; tourist tracks, one mile. The length of roads improved in Queensland from the date of commencement of work under the Main Roads Acts 1920-1952 to 30th June, 1958, was 14,369 miles (69 per cent). At that date also, 525 miles of new road construction and 426 miles of stage construction work were proceeding.

(b) *Composition of Roads.* The total length of roads and streets in Queensland at 30th June, 1958, was:—Concrete or other high standard, 231 miles; paved-sealed, 7,678 miles; paved unsealed, 18,569 miles; formed only, 34,957 miles; cleared only, 14,226 miles; natural state, 44,663 miles; total, 120,324 miles.

(iii) *Department of Main Roads. (a) General.* During 1957–58, the Department completed 1,355 miles of roads including new construction and stage construction. Bridges of all types to a length of 6,698 linear feet were constructed, bringing the total constructed by the Department at 30th June, 1958, to 196,732 feet. In addition, at 30th June, 1958, 4,299 feet were under construction.

(b) *Receipts and Payments.* The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc., under the Transport Acts, contributions under the Commonwealth Aid Roads Acts and loans, grants and advances from the State Government. The total receipts and payments, including amounts for defence works, during each of the years 1938–39 and 1954–55 to 1957–58 are shown below:—

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS.
(£.)

Item.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.
RECEIPTS.					
Motor Vehicle Registration, Transport Acts Collections, Fees, etc. . .	938,227	4,075,193	4,342,483	4,608,807	4,797,882
Loans from State Government . .	392,225	..	380,000	..	125,000
Grants, Advances, Refunds, etc. from State Government	579,775	..	..	..	47,414
Commonwealth Aid Roads and Works Acts	806,218	4,414,226	5,135,202	6,012,899	7,020,237
Maintenance Repayments—Local Authorities	98,154	368,711	406,998	590,885	611,124
Hire, Rent, Sales of Plant, etc. . .	288,330	615,080	765,687	882,316	945,525
Other		329,549	415,931	405,555	479,362
Total	3,102,929	9,802,759	11,446,301	12,500,462	14,026,544
PAYMENTS.					
Permanent Road Works and Surveys	2,045,900	6,091,811	6,344,024	7,953,553	8,027,715
Maintenance of Roads . .	331,734	2,077,429	2,521,193	2,372,221	2,556,029
Plant, Machinery, Buildings, etc. (including Plant Maintenance) . .	73,632	1,390,728	1,070,648	1,287,443	1,239,085
Loans—Interest	38,861	265,079	253,050	242,592	208,498
Redemption	78,153	250,817	255,224	256,048	256,287
Payments to State Consolidated Revenue	340,244	..	..	..	..
Payments to Local Authorities . .	27,418	1,625	1,625	1,743	1,688
Administration, etc. . . .	151,700	803,671	905,599	1,021,017	1,060,203
Total	3,087,642	10,881,160	11,351,363	13,134,617	13,349,505

5. *South Australia.*—(i) *General.* The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to undertake the construction, maintenance and protection of the principal roads of the State. In addition, the Commissioner—

(a) allocates grants to councils for roadworks and supervises the expenditure.

(b) assists Councils to purchase road-making plant and to defray the cost of roadworks.

(c) advises Councils on any question concerning the construction, maintenance or repair of roads.

(ii) *Source of Funds.* Funds of the Department are derived mainly from—

(a) *State Government.* The Highways Fund, into which are paid the proceeds from motor vehicle registrations and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils and contributions by the Municipal Tramways Trust.

(b) *Commonwealth Government.* Contributions under the Commonwealth Aid Roads Acts.

(iii) *Length of Roads.* In South Australia, there are only two classifications of roads. These are Main Roads proclaimed under the provisions of the Highways Act and all other roads, commonly designated District Roads. At 30th June, 1959, there were 8,188 miles of proclaimed Main Roads and 54,012 miles of District Roads, totalling 62,200 miles. Of these, 28,980 miles are unformed and carry little or no traffic and a further 15,504 miles, which have been formed only, are open to traffic during most of the year. Of the remainder, there are 12,962 miles of road constructed with gravel or crushed rock and 4,754 miles of a higher standard constructed with either bitumen or concrete.

(iv) *State Highways and Local Government Department, Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1938-39 and 1954-55 to 1958-59 of funds controlled by the Highways and Local Government Department.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1938-39. (a)	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
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RECEIPTS.

Motor Vehicle Registration, Licences, Fees, Fines, etc.	690,849	2,997,668	3,221,230	3,404,557	3,470,923	3,750,160
Commonwealth Aid Roads and Works Acts	479,922	2,555,471	2,958,943	3,481,627	3,944,987	4,395,218
Loans from State Government	200,000	200,000	100,000	10,000	15,000	..
Recoups—Local and Semi-govern- mental Authorities	1,531	9,978 348,467	399,192	416,427	432,302	408,854
Other						
Total	1,372,302	6,111,584	6,679,365	7,312,611	7,863,212	8,554,232

PAYMENTS.

Construction and Reconstruction of Roads and Bridges	61,150,082	287,748 825,371	3,658,078 1,856,515	3,569,676 1,856,560	3,738,544 2,123,008	5,096,450 2,174,320
Maintenance						
Recoups to Consolidated Revenue Fund—Interest, Debt Redemption and Exchange	(c) 178,273	168,297	182,910	189,150	202,646	205,361
Grants and Advances to Local and Semi-governmental Authorities	(d)	1,209,958 310,971	470,243 403,014	263,705 457,583	293,349 524,374	464,723 (e)
Administration						
Stores, Plant, Machinery, Suspense Accounts, etc.	45,753	722,539 31,949	424,206 50,790	1,049,861 — 38,649	785,951 — 7,076	528,781 — 13,895
Other						
Total	1,374,108	6,146,833	6,751,756	7,347,886	7,660,796	8,455,740

(a) Figures for 1938-39 are not completely comparable with those for following years. (b) Roads, plant, etc. (c) Interest and sinking fund payments. (d) Not available separately; included elsewhere. (e) Administrative Expenses amounting to £596,876 have been charged to "Construction and Reconstruction of Roads and Bridges" and to "Maintenance".

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1938-39 and 1954-55 to 1957-58 was, respectively, £1,966,000, £7,539,000, £8,812,000, £9,228,000 and £9,889,000.

6. *Western Australia.*—(i) *General.* Under the Main Roads Act 1930-1954, the Main Roads Board, established in 1926, was abolished and a Commissioner of Main Roads was appointed. His duties relate to the determination of main roads after consideration of the funds available and the services to be rendered by the roads, the declaration and provision of developmental roads, construction of and maintenance of main roads and the carrying out of surveys, investigations and experiments in connexion with roads and road materials.

(ii) *Length and Composition of Roads.* The total length of roads for which financial provision is made by the Main Roads Department at 30th June, 1958, was:—Declared Main Roads, 3,487 miles; Important Secondary Roads, 7,149 miles; and Developmental Roads, 14,360 miles. Important Secondary Roads are roads which were formerly included as

developmental. However, by virtue of their consistent use by through traffic a special provision of funds by the Main Roads Department was warranted. The classification of "important secondary roads" has no legal significance as the care and control of these roads remains the responsibility of the Local Authorities.

The total length of roads and streets in Western Australia at the 30th June, 1958, was made up as follows:—Bituminous, 7,137 miles; gravel, waterbound, 16,158 miles; other constructed surfaces, 2,000 miles; formed only, 39,320 miles; unprepared, 25,057 miles; total, 89,672 miles.

(iii) *Main Roads Department.* During the year 1957–58, the activities of the Department included—Clearing, 1,704 miles; forming, 2,394 miles; gravelling, 1,374 miles; reconditioning, 4,740 miles; and stabilizing, 562 miles. In addition, 1,003 miles were primed or sealed (including widening) and 17 bridges constructed. Steady progress is being made on the construction of a bridge over the Swan River at the Narrows. The estimated cost of the project is £1,600,000. The principal source of income of the Main Roads Department is derived from the Commonwealth Aid Roads Act 1954–1956 and the Commonwealth Aid Roads (Special Assistance) Act. Other sources of income include a portion of the Traffic Fees collected in the Metropolitan Traffic Fee area and Transport Board funds. Outside the Metropolitan Area motor vehicle licence fees are collected and retained by the Local Authorities, i.e. Municipalities and Road Boards.

(iv) *Receipts and Payments—Combined Road Funds.* The following table shows the combined transactions of the Main Roads Trust Account, the Main Roads Contributions Trust Account, the Metropolitan Traffic Trust Account, and the Commonwealth Aid Roads and Works Trust Accounts during the years ended 30th June, 1939 and 1955 to 1959. Figures for the years ended 30th June, 1939, and 30th June, 1955, to 30th June, 1957, have been revised since publication of Year Book No. 45.

ROAD FUNDS, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (a)	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
RECEIPTS.						
Motor Vehicles Registration, Licences, Fees, Fines, etc.(b)	175,160	521,828	567,544	726,843	942,177	975,296
Commonwealth Aid Roads and Works Acts	823,162	4,411,656	5,110,892	6,037,821	6,752,973	7,574,065
Recoups from Local Authorities, etc.	6,545	244,901	233,285	154,661	165,987	152,754
Other	132,017	191,535	185,723	133,249	14,355	5,254
Total	1,136,884	5,369,920	6,097,444	7,052,574	7,875,492	8,707,369
PAYMENTS.(c) (d)						
Construction and Reconstruction of Roads and Bridges	983,405	2,813,248	4,212,007	4,726,432	6,100,370	6,651,955
Maintenance of Roads and Bridges	76,061	277,449	379,353	342,862	345,572	349,981
Grants to Local Authorities, etc.	125,546	641,753	754,517	856,285	839,282	894,521
Transfer to State Consolidated Revenue Interest, Debt Redemption and Exchange—State Consolidated Revenue .. ..	..	70,000	70,000	70,000	70,000	70,000
Plant, Machinery, etc.	7,396	7,396	7,396	7,396	7,396	7,396
Other	29,135	331,404	481,537	580,880	456,041	222,864
Total	1,221,543	4,687,083	6,218,427	6,784,450	8,053,754	8,477,929

(a) Figures not completely comparable with those for following years. (b) Net of Police Collection and Administration fees. (c) Administrative Expenses have been included in Expenditure on (i) Construction and Reconstruction of Roads and Bridges, (ii) Maintenance of Roads and Bridges and (iii) Other. (d) Expenditure on hire and maintenance of road construction plant, etc. and on purchase of material has been included in expenditure on (i) Construction and Reconstruction of Roads and Bridges, (ii) Maintenance of Roads and Bridges and (iii) Other.

7. *Tasmania.*—(i) *General.* Under the Road Construction (Transfer of Functions) Act 1951, which came into operation on 1st July, 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands

and Works. Works authorized by the Minister in respect of roads classified as State highways, tourist, and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorized by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1957-58 on the construction of roads, tracks and bridges amounted to £3,055,009 of which £2,474,810 was charged to road funds, £17,295 to revenue, £485,191 to loan and £77,713 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

(ii) *Length of Roads.* (a) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1959, were as follows:—State highways, 1,158 miles; main roads, 669 miles; secondary roads, 187 miles; tourist roads, 45 miles; developmental roads, 10 miles; subsidized roads, 131 miles; total, 2,200 miles. Country roads totalled nearly 10,000 miles. The mileages of sealed roads, and their proportions to the respective totals, were:—State highways, 612 miles (53 per cent.); main roads, 263 miles (40 per cent.); secondary and other roads, 25 miles (7 per cent.); total, 900 miles (41 per cent. of all classified roads, and 8 per cent. of all roads, in Tasmania).

(b) *Composition of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1959, was as follows:—Bituminous, 1,294 miles; concrete, 24 miles; granite, limestone, etc., water-bound, 8,494 miles; surfaces of lower grade, 2,089 miles; total, 11,901 miles.

(iii) *Receipts and Payments—Combined Road Funds.* The table hereunder shows particulars of the receipts and payments of the combined Road Funds for the years 1939-40 and 1955-56 to 1958-59:—

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS.
(£.)

Item.	1939-40. (a)	1955-56.	1956-57.	1957-58.	1958-59.
RECEIPTS.					
Motor Vehicle Taxation and Registration, Licences, Fees, Fines, etc.	193,165	623,782	840,724	1,023,055	1,049,463
Commonwealth Aid Roads and Works Acts	220,241	1,303,299	1,535,719	1,745,888	1,948,491
Recoups from Local Authorities, etc.	..	10,765	10,469	9,192	9,641
State Loan Fund .. .. .	..	782,264	679,099	600,083	705,630
Hire of Plant .. .. .	..	813,593	912,089	1,076,810	1,181,032
Other	719	171,205	31,046	52,310	89,219
Total	414,125	3,704,908	4,009,146	4,507,338	4,983,476

PAYMENTS.

Construction and Reconstruction of Roads and Bridges	130,924	1,624,722	1,945,053	1,763,457	2,571,412
Maintenance	113,199	1,079,893	1,150,714	1,204,243	1,190,902
Jetties, etc.	22,467	..	..	..	..
Other works connected with Transport	5,748	11,558	7,105	2,935	14,659
Grants to Local Authorities, etc. .. .. .	..	5,401	7,346	12,755	9,657
Administration	15,053	40,213	36,405	35,729	(b)
Purchase, Hire and Maintenance of Plant	(c)	839,360	1,068,202	1,080,554	1,232,912
Other	31,894	70,535	57,312	57,156	61,427
Total	319,285	3,671,682	4,272,137	4,156,829	5,080,969

(a) First year of operation of Transport Commission. Figures not completely comparable with those for following years. (b) Administration costs have been distributed over other items. (c) Not available, included with other.

8. **Summary of Roads used for General Traffic.**—(i) *Proclaimed or Declared Roads.* The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30th June, 1959. These proclaimed or declared roads are those for which the central road authority assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points:—availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g., insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, 30th JUNE, 1959.
(Miles.)

Class of Road.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust. (a)	Tas.	Total.				
State highways	6,504	3,845	8,254	} 8,188	3,487 {	1,158 669	} 68,331				
Trunk roads	4,180	} 9,754	10,553								
Ordinary main roads	11,739										
<i>Total Main Roads</i>	22,423	13,599	18,807	8,188	3,487	1,827	68,331				
Secondary roads	(b) 86	..	646	..	(c) 7,149	187	8,068				
Developmental roads	2,787	..	235	..	14,360	10	17,392				
Tourist roads .. ..	..	415	297	..	..	45	757	
Other roads .. ..	..	(d) 378	(e) 915	..	..	(f) 131	1,424	
<i>Total Other Roads</i>	2,873	793	2,093	..	21,509	373	27,641				
Grand Total	25,296	14,392	20,900	8,188	24,996	2,200	95,972				

(a) As at 30th June, 1958. (b) Metropolitan only. (c) Though financed by the Main Roads Department, these roads are under the control of Local Authorities. (d) Forest roads. (e) Includes mining access roads, 606 miles; farmers' roads, 308 miles; and tourist tracks, 1 mile. (f) Subsidized roads.

(ii) *Composition of Roads.* The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad composition groups. The results are not entirely satisfactory, because (i) it is doubtful whether the whole of Australia is covered, (ii) the dates of reference differ, and (iii) the figures constituting each group are not wholly comparable for the States and Territories. It is hoped, however, that despite these defects the table will provide an approximate and general idea of the main types of roads in Australia.

The figures in the table for the States are obtained from the State Government Statisticians, and are derived mainly from local government sources. Unincorporated areas in some States are probably excluded and the figures on the returns supplied by the local government authorities are in some cases of doubtful accuracy. Details of the composition of roads, as far as they are available, vary to such an extent that it is considered preferable to show here only major divisions.

Groups 1-4 as shown in the table include, respectively, the following types of composition:—

1. *Wood or Stone.* Wood blocks; stone paved.
2. *Concrete.* Cement concrete; asphaltic concrete; bituminous concrete; sheet asphalt on concrete base.

3. *Bituminous.* Tar or bituminous macadam; tar and bituminous surface seal; surfaced water-bound macadam or gravel; bituminous or cement penetration.
4. *Macadam and Other.* Water-bound macadam; granite, limestone, and blast-furnace slag, water-bound; water-bound gravel; gravel or crushed rock; metallised (gravel or rubble); gravel, sand and hard loam pavements.

Groups 5 and 6 include roads so-called mainly because they are used for general traffic, irrespective of their surfaces, prepared or otherwise.

It will be noticed that some of the terms used above are practically synonymous. Such terms are, of course, not used by any one State, but are the classifications adopted by different States.

For details of any particular State, *see* the respective paragraphs in the preceding pages.

ALL ROADS USED FOR GENERAL TRAFFIC: LENGTHS.

(Miles.)

Composition of Roads.	N.S.W. 30th June, 1957.	Vic. 30th Sept., 1957.	Q'land. 30th June, 1958.	S. Aust. 30th June, 1959.	W. Aust. 30th June, 1958. (a)	Tas. 30th June, 1959.	N. Terr. 30th June, 1959.	A.C.T. 30th June, 1959.	Total.
1. Wood or stone ..	..	55	..	6	..	..	..	..	61
2. Concrete ..	635	578	231	814	..	24	..	59	2,341
3. Bituminous	15,105	15,114	7,678	3,934	7,137	1,294	1,357	253	51,872
4. Macadam	42,522	31,954	18,569	12,962	18,158	8,494	227	93	132,979
5. Formed only	27,604	23,873	34,957	15,504	39,320	2,089	9,255	211	338,605
6. Cleared, or natural surface only	41,231	29,778	58,889	28,980	25,057		1,837	20	
Total ..	127,097	101,352	120,324	62,200	89,672	11,901	12,676	636	525,858

(a) Municipalities, 31st October; Road Districts, 30th June.

9. *Summary of Expenditure on Roads and Bridges.*—(i) *General.* In most States, there are three classes of authorities—the State Government, the central road authority, and numerous local government bodies. Most of these authorities may expend money either directly on road construction or indirectly by means of grants and miscellaneous payments to other authorities. Insufficient information is given in the accounts of many authorities to permit the exclusion of these indirect payments which would, if included in the aggregate, duplicate the expenditure. In addition, a number of authorities are not able to supply separate information concerning their expenditure on roads. For these reasons, it has not been possible, up to the present, to compile statistics of the aggregate expenditure on roads.

The two paragraphs following, therefore, represent only: (a) aggregate expenditure from the various State road funds referred to in the foregoing pages, and (b) loan fund expenditure by State Governments. Expenditure by local government bodies is not included. Paragraph 8, *Finances*, of § 2. *Local Government Authorities*, contains some particulars of local government revenue and expenditure on roads, streets and bridges (*see pp.* 709, 710, 714 and 715).

(ii) *Aggregate Expenditure from State Road Funds.* The following table shows expenditure on the construction and maintenance of roads, including payments to local government bodies, by each State during the years 1938–39 and 1954–55 to 1958–59, as summarized from the foregoing tables dealing with the receipts and payments of the various State road authorities. Expenditure on plant and materials not charged to construction and maintenance of roads and bridges and identifiable expenditure on debt charges and payments to State consolidated revenues are not included. In some instances, expenditure on works other than roads and bridges is included. Because of differing accounting methods, figures are not completely comparable as between States, nor, in some States, as from year to year.

ROADS AND BRIDGES: AGGREGATE EXPENDITURE FROM ROAD FUNDS.
(£'000.)

Year ended 30th June—	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1939.. ..	3,358	2,569	2,557	1,150	1,214	(b) 319	11,167
1955.. ..	12,953	9,131	8,975	5,256	4,064	2,752	43,131
1956.. ..	13,786	10,659	9,772	6,145	5,659	2,832	48,853
1957.. ..	14,678	12,442	11,349	6,109	6,126	3,204	53,908
1958.. ..	16,377	15,696	11,646	6,626	7,521	3,076	60,942
1959.. ..	17,335	16,170	(c)	7,526	8,178	3,848	(c)

(a) Excludes Sydney Harbour Bridge.

(b) Year 1939–40.

(c) Not available.

The foregoing particulars do not represent the total expenditure on roads and bridges in each State. To obtain this information, additions must be made on account of (a) State Government expenditure from revenue and loan through Departments or authorities other than the central road authority and (b) local government expenditure from revenue and loan, while on the other hand, allowances must be made for grants and miscellaneous payments to other authorities (*see* (i) above).

(iii) *State Net Loan Expenditure.* In recent years, expenditure from State loan funds on roads and bridges has not been large, and it would appear also, that a considerable proportion passes through the funds of the central road authorities and is therefore included in the figures of their financial operations in the foregoing sections. Gross loan expenditure by all State Governments during the two years 1957–58 and 1958–59 amounted to approximately £2,500,000, while net expenditure was about £1,500,000. Aggregate net loan expenditure on roads and bridges in each State to 30th June, 1959, amounted to the following approximate sums:—New South Wales, £22,000,000; Victoria, £23,000,000; Queensland, £8,000,000; South Australia, £5,000,000; Western Australia, £3,000,000; Tasmania, £11,000,000; total, £72,000,000.

§ 5. Water Supply, Sewerage and Drainage.

NOTE.—*See also* Chapter VIII.—Water Conservation and Irrigation.

1. **New South Wales.**—(i) *General.* The two largest domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e., in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, and (b) the Hunter District Water Board, serving the Newcastle area. At Broken Hill, a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

(ii) *Water Supply—to 30th June, 1958.* (a) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined available capacity of 147,730 million gallons, drain catchment areas of 376 square miles (Upper Nepean, 347 square miles and Woronora, 29 square miles). Water is drawn also from the Warragamba River, with a catchment of 3,383 square miles. This system is being developed, and building is in progress of a dam to have an overall height of 415 feet (greatest depth of water 340 feet) having a storage capacity of 460,000 million gallons and giving a net safe draught estimated at 263 million gallons a day in addition to 11 million gallons a day for riparian purposes. The existing temporary storage is supplied by a weir 50 feet high with a maximum storage of 579 million gallons. At 30th June, 1958, there were 123 service reservoirs in use with a combined capacity of 570 million gallons. Rating for water for 1957–58 was 10d. in the £1 of assessed annual value and the charge for water measured by meters 2s. 3d. per 1,000 gallons.

(b) *Newcastle.* The water supply is drawn from two sources (1) the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 113 million gallons. Water rating for 1957-58 was 1s. 6½d. in the £1 on assessed annual value for occupied properties and 1s. 3½d. in the £1 for unoccupied properties. The price of water to domestic and industrial consumers is 2s. 6d. per 1,000 gallons.

(c) *Water Supplied, etc.* The following tables show, for the Sydney and Newcastle systems, the number of properties, the estimated population supplied, and other details for the years 1938-39 and 1953-54 to 1957-58:—

WATER SUPPLY, SYDNEY(a): SERVICES.

Year.	Improved Properties for which Water Mains available.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Property.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	350,161	1,466,000	106.3	38,790	304	72.5	4,539	126,754
1953-54 ..	496,025	1,975,000	163.9	59,810	330	83.7	5,502	270,239
1954-55 ..	513,855	2,014,000	161.8	59,064	315	80.4	5,656	294,463
1955-56 ..	531,977	2,053,000	174.3	63,791	332	85.6	5,788	308,511
1956-57 ..	545,992	2,096,000	196.0	71,530	364	94.1	5,904	326,173
1957-58 ..	561,934	2,148,000	183.6	67,016	331	86.1	6,055	340,364

(a) Includes part of South Coast.

WATER SUPPLY, NEWCASTLE: SERVICES.

Year.	Properties Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.
					Per Property.	Per Head of Estimated Population.	
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.
1938-39 ..	48,370	193,480	11.9	4,331	245	61.3	936
1953-54 ..	71,307	285,228	25.5	9,416	362	90.4	1,284
1954-55 ..	73,770	295,080	25.1	9,179	341	85.2	1,322
1955-56 ..	76,272	305,088	27.2	9,945	356	89.1	1,354
1956-57 ..	77,380	309,520	29.5	10,768	381	95.3	1,369
1957-58 ..	78,954	315,816	29.5	10,753	373	93.3	1,410

(iii) *Sewerage and Drainage—to 30th June, 1958.* (a) *Metropolitan.* Sydney and suburbs are served by three major sewerage systems and six minor systems consisting of six outfalls discharging directly into the Pacific Ocean and three treatment works. In addition, four centres outside the metropolitan area (Camden, Campbelltown, Liverpool and Wollongong) are served by local treatment works.

Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30th June, 1958, were 180 miles long. Sewerage rating for 1957-58, was 9d. in the £1 of assessed annual value and drainage rating 1½d. in the £1.

(b) *Newcastle.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts, treatment works have been installed.

Sewerage rates for 1957-58 were 1s. 1½d. in the £1 of assessed annual value of occupied lands and 10½d. in the £1 for unoccupied lands and drainage rates (on certain areas served) 1½d. in the £1.

(c) *Particulars of Services.* The following table gives, for the Metropolitan system, details of sewerage services and stormwater drains as at 30th June, 1939 and 1954 to 1958.

SEWERAGE AND DRAINAGE, METROPOLITAN(a): SERVICES.

At 30th June—				Improved Properties for which Sewerage Available.	Estimated Population Served.	Lengths of Sewers.	Length of Stormwater Channels.
						Miles.	Miles.
1939..	..	..	..	254,632	1,066,000	2,561	87
1954..	..	..	..	324,737	1,354,000	3,163	175
1955..	..	..	..	334,280	1,390,000	3,252	175
1956..	..	..	..	344,655	1,425,000	3,349	175
1957..	..	..	..	353,800	1,457,000	3,462	175
1958..	..	..	..	364,712	1,483,000	3,628	180

(a) Includes part of South Coast.

At 30th June, 1958, 52,311 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle area). The total length of sewers under the Board's control was 714 miles, and the length of drains was 49 miles.

(iv) *Finances, Sydney and Newcastle Systems.* The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1957–58 and for the three services combined during the years 1938–39 and 1953–54 to 1957–58.

WATER SUPPLY, SEWERAGE AND DRAINAGE, METROPOLITAN AND NEWCASTLE: FINANCES.
(£.)

Year.	Capital Debt at 30th June.	Revenue.	Expenditure.				Surplus (+) or Deficit (—).
			Working Expenses. (a)	Interest and Exchange.	Debt Redemption.	Total.	
METROPOLITAN.(b)							
1957-58—							
Water	83,204,982	8,426,484	3,956,815	3,264,208	1,195,391	8,416,414	+ 10,070
Sewerage.. ..	32,049,777	4,353,513	2,663,807	1,224,456	463,840	4,352,103	+ 1,410
Drainage.. ..	c 1,369,960	291,581	220,833	45,989	21,089	287,911	+ 3,670
Total 1957-58	116,624,719	13,071,578	6,841,455	4,534,653	1,680,320	13,056,428	+ 15,150
1956-57	105,627,704	11,299,363	5,853,765	3,899,087	1,540,412	11,293,264	+ 6,099
1955-56	98,801,814	9,349,410	4,851,588	3,446,598	1,044,103	9,342,289	+ 7,121
1954-55	91,434,271	8,507,664	4,732,625	3,109,747	641,164	8,483,536	+ 24,128
1953-54	84,474,951	7,891,016	4,365,926	2,878,004	598,634	7,842,564	+ 48,452
1938-39	43,769,741	2,926,694	957,422	1,727,708	241,564	2,926,694	..
NEWCASTLE.							
1957-58—							
Water	12,904,692	1,389,046	770,886	454,221	163,150	1,388,257	+ 789
Sewerage.. ..	3,882,007	529,974	335,941	137,846	51,848	525,635	+ 4,339
Drainage.. ..	212,636	42,676	31,766	7,390	2,909	42,065	+ 611
Total 1957-58	16,999,335	1,961,696	1,138,593	599,457	217,907	1,955,957	+ 5,739
1956-57	14,602,234	1,709,861	989,870	521,212	194,718	1,705,800	+ 4,061
1955-56	13,175,757	1,534,591	981,473	435,203	82,767	1,499,443	+ 35,148
1954-55	11,842,265	1,465,655	943,382	382,663	73,330	1,399,375	+ 66,280
1953-54	10,439,017	1,245,444	828,021	332,628	66,407	1,227,056	+ 18,388
1938-39	4,574,880	385,732	167,620	188,185	20,886	376,691	+ 9,041

(a) Includes provision for renewals, long service leave, loss on exchange, etc. (b) Includes part of South Coast. (c) Excludes non-interest bearing capital in respect of stormwater drains transferred from Public Works Department—£2,219,823 at 30th June, 1958.

(v) *Country Water Supply and Sewerage Systems.* (a) *Local Government.* At 31st December, 1957, country water supply services were conducted or under construction by 58 municipalities, 74 shires and 5 county councils, and country sewerage services by 55 municipalities and 25 shires. The capital indebtedness of these schemes was £23,530,112 at 31st December, 1957, namely, £16,288,740 for water and £7,241,372 for sewerage. Debt of the municipalities amounted to £13,177,234, shires to £6,295,282 and county councils to £4,057,596. Government advances amounting to £440,605 are included in these figures. Aggregate income and expenditure amounted to £4,007,716 and £3,084,997, respectively, in 1957.

(b) *Other.* The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31st December, 1957, was £3,138,507. In 1957, income (excluding subsidies, State Government £114,059 and Mining Companies £328,901) amounted to £238,235 and expenditure (excluding debt redemption £175,223) amounted to £503,341.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was £4,711,162 at 31st December, 1957.

The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

2. *Victoria.*—(i) *Melbourne and Metropolitan Board of Works.* (a) *General.* The Board was established by Act of Parliament on 20th December, 1890. Since August, 1955, the Board has consisted of a Chairman and 50 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The Chairman is elected by the Commissioners for a four-year term. The principal functions of the Board until 1954 were to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; and to control and manage the rivers, creeks and watercourses within the metropolitan area. The Board has carried out since December, 1954, the additional functions of a permanent planning authority and in June, 1956, it became the authority directly responsible for metropolitan main highways, bridges, parks and foreshores.

(b) *Water Supply.* There are six storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourrong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 931 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,766 million gallons (65,453 million gallons). Service reservoirs number 29, with a total capacity of 317 million gallons.

The water rate levied by the Board in 1957–58 was 8d. in the £1 on the net annual value of the properties served. The charge for water consumed in excess of the quantity which at 1s. per 1,000 gallons would equal the water rates payable on each property was 1s. 6d. per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1938–39 and 1953–54 to 1957–58.

WATER SUPPLY, MELBOURNE: SERVICES.

Year.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Aqueducts, etc., Mains and Reticulation.	Number of Meters.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	285,408	1,133,000	76.8	28,040	269	67.8	3,234	189,617
1953-54 ..	390,035	1,404,000	110.6	40,354	283	78.8	4,213	266,395
1954-55 ..	405,464	1,460,000	110.3	40,270	272	75.6	4,300	273,856
1955-56 ..	424,500	1,528,000	113.0	41,377	266	74.0	4,381	289,567
1956-57 ..	440,159	1,585,000	119.6	43,652	271	75.4	4,478	299,676
1957-58 ..	454,853	1,637,000	128.8	47,006	283	78.7	4,721	317,670

(c) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1938-39 and 1953-54 to 1957-58 are shown below. The rate levied in 1957-58 in respect of sewerage was 1s. 2d. in the £1 on the net annual value of the property served. The drainage rate was 2d. in the £1.

SEWERAGE AND DRAINAGE, MELBOURNE: SERVICES.

Year.	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.	Length of Main Drains.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	Miles.
1938-39 ..	269,411	1,070,000	48.2	17,601	179.0	45.1	2,586	97
1953-54 ..	345,370	1,243,000	70.1	25,599	203.1	56.4	3,019	134
1954-55 ..	351,617	1,266,000	74.8	27,315	212.8	59.1	3,071	137
1955-56 ..	358,805	1,292,000	76.8	28,118	214.1	59.4	3,125	151
1956-57 ..	366,507	1,319,000	74.5	27,181	203.2	56.5	3,180	161
1957-58 ..	375,019	1,350,000	75.0	27,379	200.0	55.6	3,256	169

The metropolitan sewerage system consists of the Main system (serving an area of 74,919 acres) and three subsidiary systems—the Sunshine system (serving an area of 1,689 acres), the Kew system (serving an area of 103 acres) and the South-eastern system (serving an area of 2,697 acres in Cheltenham, Parkdale, Mentone and Mordialloc). The Metropolitan Sewage Farm, 26,854 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 95 per cent. of the sewage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the Farm to 30th June, 1958, was £3,432,021. Revenue during 1957-58 amounted to £178,348, cost of sewage disposal to £207,559, trading expenses to £109,366, interest to £148,877, and net cost of sewerage purification to £287,454. These financial particulars are included in the sewerage items of the summary below.

(d) *Finances.* The following table provides for the year 1957-58 a summary of the financial operations of the three services conducted by the Melbourne and Metropolitan Board of Works.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES, 1957-58.

(£.)

Service, etc.	Capital Cost of Works and Buildings at 30th June. (a)	Revenue.	Expenditure.				Surplus (+) or Deficit (-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
Water	41,037,376	3,037,578	1,202,317	1,723,746	..	2,926,063	+ 111,515
Sewerage	28,193,714	3,410,753	1,257,118	1,197,583	..	2,454,701	+ 956,052
Drainage	6,842,582	514,419	353,880	215,741	..	569,621	- 55,202
General (b) ..	3,443,375	..	672,430	150,000	170,507	992,937	- 992,937
Total	79,517,047	6,962,750	3,485,745	3,287,070	170,507	6,943,322	+ 19,428

(a) Total loan indebtedness—1957-58, £68,202,715.

(b) Statutory and general expenditure not distributed over Services.

The following table shows the financial operations of the Melbourne and Metropolitan Board of Works (all services combined) for the years 1938-39 and 1953-54 to 1957-58:—

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES.

(£.)

Year.	Capital Cost of Works and Buildings at 30th June.	Revenue.	Expenditure.				Surplus (+) or Deficit (-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
1938-39	28,513,539	2,214,295	762,558	1,316,603	64,269	2,143,430	+ 70,865
1953-54	52,068,617	4,712,533	2,384,131	2,010,730	106,796	4,501,657	+ 210,876
1954-55	57,747,795	5,091,108	2,744,555	2,211,592	123,977	5,080,124	+ 10,984
1955-56	64,557,489	5,603,803	2,899,891	2,566,587	132,466	5,598,944	+ 4,859
1956-57	72,074,030	6,241,514	3,224,087	2,851,191	149,139	6,224,417	+ 17,097
1957-58	79,517,047	6,962,750	3,485,745	3,287,070	170,507	6,943,322	+ 19,428

(ii) *State Rivers and Water Supply Commission.* (a) *General.* Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is the responsibility of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection and river improvement, have already been described in Chapter VIII.; this section is therefore confined to the Commission's functions in connexion with urban water supply and sewerage.

(b) *Water Supply.* At 30th June, 1959, the Commission provided a reticulated water supply from its own works to 130 cities and towns having a combined population of 200,000 persons.

The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 100,000 people supplied); Bendigo, Castlemaine, etc. (58,000) and about 7,000 people in the Western District. In addition, 9,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributary system from headworks controlled by the Geelong Waterworks and Sewerage Trust.

Outside these areas the Commission supplies mainly small towns in the north of the State, usually in areas where it also supplies farms with water for irrigation or domestic and stock purposes.

Capital expenditure at 30th June, 1959, has been divided up as follows:—

System.	Amount. £
Mornington Peninsula	6,500,000
Bendigo, Castlemaine	3,100,000
Bellarine Peninsula	700,000
Otway System (Western-District)	600,000
Other	800,000
Total	11,700,000

In addition to the supply which it gives directly, there are more than 500,000 people in 175 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities, usually termed Waterworks Trusts.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidizes interest on their capital expenditure. Most new works are financed from Government loan funds, but in recent years some local authorities have been able to borrow money privately. In most cases, the local authority controls both headworks and distribution system, but a few large towns—serving about 50,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply more than 300 urban centres containing more than 700,000 people. Very few towns of any importance are now without a reticulated water supply.

(c) *Sewerage.* The State Rivers and Water Supply Commission directly controls the sewerage system of the town of Eildon. With that exception, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage Districts Act.

At 30th June, 1959, there were 36 cities and towns with sewerage systems in operation. These contained about 325,000 persons, approximately a third of the total number of residents outside the metropolitan area.

A summary of the financial operations of the State Rivers and Water Supply Commission, covering all phases of the Commission's activities, for each of the years 1938–39 and 1954–55 to 1958–59 are given in the following table:—

STATE RIVERS AND WATER SUPPLY COMMISSION, VICTORIA: FINANCES.(a)

Year.	Total Loan Capital Expenditure to 30th June.	Receipts.	Payments.				
			Operating Expenses.	Interest on Capital allotted.	Deprecia- tion.	Debt Redemp- tion.	Total.
1938–39	£ 24,223,037	£ 560,680	£ 476,085	£ 145,105	£ 27,553	£ 4,922	£ 653,665
1954–55	73,456,588	2,532,946	2,781,621	95,335	120,475	2,465	2,999,896
1955–56	79,847,923	2,810,391	2,940,637	118,379	127,774	5,491	3,192,281
1956–57	85,705,533	2,874,904	3,194,160	130,621	134,101	3,750	3,462,632
1957–58	91,163,842	3,487,775	3,444,673	139,807	148,272	23,850	3,756,602
1958–59	97,370,229	3,589,984	3,613,194	145,692	153,272	3,900	3,916,058

(a) Excludes waterworks and river improvement trusts and local governing bodies under the general supervision of the Commission.

The total loan capital expenditure of waterworks and river improvement trusts and local governing bodies to 30th June, 1958, and 30th June, 1959, was £13,535,974 and £15,329,821, respectively, making a grand total of £104,699,816 and £112,700,050, respectively, when added to the figure of works under the control of the Commission. The net loan capital after redemption payments of £4,238,546 and £5,090,790, respectively, was £100,461,269 and £107,609,260, respectively.

The financial operations of the Commission form part of the Consolidated Revenue Fund, but are included in this section for convenience. The major proportion of the interest payable is borne by the State and is additional to that shown above. The net expenditure borne by the State was £3,863,583 during 1957-58 and £4,317,575 during 1958-59.

(iii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910. It was further reconstituted in September, 1950, to include a Government nominee (Chairman) and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners instead of five as formerly. The amount of loan money which may be raised is limited to £6,500,000 for water supply undertakings, and £1,250,000 for sewerage undertakings. The population supplied is estimated by the Trust at 93,076 persons. This and other general information relates to 30th June, 1958.

(b) *Water Supply.* The catchment area is about 35,000 acres. There are seven storage reservoirs and eleven service basins whose total storage capacity is 8,640 million gallons. The length of water mains and reticulation is 426 miles. The total expenditure on water supply to 30th June, 1958, was £3,210,389. Expenditure for 1957-58 comprised £121,821 for working expenses and £176,227 for interest, redemption and reserves, while revenue amounted to £301,342. The sinking fund appropriations at June, 1958, amounted to £194,858. The replacement and contingencies reserve amounted to £276,570. There is a water rate of 1s. 5d. in the £1 (with minima of 10s. for vacant land and £1 for tenements) on the net annual value of ratable properties.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 205 miles of main and reticulation sewers. The sewerage area is 10,559 acres, and the number of buildings within the sewered areas is 18,454, of which 18,370 have been connected. The total expenditure on sewerage works to 30th June, 1958, was £1,282,155. The revenue in 1957-58 amounted to £162,794 and the expenditure comprised £82,340 on working expenses and £71,953 on interest, redemption and reserves. Sinking fund appropriations at June, 1958, were £147,115. Replacement and contingencies reserve amounted to £274,442. A general rate of 1s. 4d. in the £1 is levied on the net annual value of ratable properties.

(iv) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number nine, three (one of whom is chairman) being appointed by the Government, four being elected by the Council of the City of Ballarat, one being elected by the Councils of the Borough of Sebastopol and the Shires of Buninyong and Grenville and one being elected by the Councils of the Shires of Bungaree and Ballarat. General and financial information given herein relates to the year ended 31st December, 1958.

(b) *Water Supply.* The Water Supply District embraces an area of about 65 square miles, containing a population of about 55,000. The total storage capacity of the seven reservoirs is 5,606 million gallons and the catchment area is 23,872 acres.

The capital cost of construction of the waterworks was £2,251,946 to 31st December, 1958. The liabilities amounted to £1,321,419 at 31st December, 1958, including loans due to the Government totalling £1,183,571. The revenue for the year 1958 was £150,665. Working expenses during 1958 amounted to £68,777 and interest and other charges to £79,679. A rate of 1s. 1d. in the £1 is levied on the net annual value of all ratable properties, with a minimum of £1 10s. per annum for land on which there is a building and £1 per annum for land on which there is no building.

(c) *Sewerage.* The Ballarat sewerage district embraces the City of Ballarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. Work was commenced in 1922 and up to 31st December, 1958, the Authority had constructed a disposals works, a nightsoil depot, an ejector station and more than 115 miles of sewers. The capital cost of sewerage construction works to 31st December, 1958, was £881,098. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and seventy-one sewered areas had been declared as at 31st December, 1958. Assessments in the sewerage district numbered 17,096, while those in sewered areas numbered 12,811. There were 11,325 buildings connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1958, amounted to £702,522; redemption payments at that date totalled £264,052. An expenditure of £157,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1958 amounted to £92,762 and expenditure, which included £44,654 on interest and redemption, was £90,594.

A sewerage rate of 1s. 4d. in the £1 is levied, with a minimum charge of £3, on the net annual value of any ratable sewered property on which there is a building and £1 on any ratable sewered property on which there is no building.

(v) *Other Sewerage Authorities.* At 30th June, 1958, 62 sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts in districts outside the areas under the control of the Melbourne and Metropolitan Board of Works, the Geelong Waterworks and Sewerage Trust, and the Ballarat Sewerage Authority, and systems were in operation in 34 districts. In addition, the State Rivers and Water Supply Commission operates a system in the township of Eildon. The population served by these systems is estimated at 300,000 persons.

The operations of the other 28 districts constituted at this date had been either suspended or not commenced.

3. *Queensland.*—(i) *Brisbane City Council—to 30th June, 1958.* (a) *General.* This organization conducts the water supply and sewerage systems of the City of Brisbane. Prior to 1928, water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council, which also supplies, in bulk, the whole of the water used by the City of Ipswich and the Town of Redcliffe.

(b) *Water Supply.* Water storage facilities comprise the following (available capacities are shown in parentheses):—Somerset Reservoir, 200,000 million gallons (55,000 million gallons); Lake Manchester, 5,806 million gallons (5,725 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are 16 service reservoirs with a capacity of approximately 41 million gallons. The Somerset reservoir is under the control of Stanley River Works Board and is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating at 30th June, 1958, was 3½d. in the £1 of unimproved capital value for improved properties, and 2½d. in the £1 for vacant lands, with a minimum charge of £5 9s. and £4 5s. respectively. The following table is a summary of operations of the complete Brisbane City Council system (metropolitan area, Ipswich and Redcliffe) for the years 1938–39 and 1953–54 to 1957–58:—

WATER SUPPLY, BRISBANE(a): SERVICES.

Year.	Services Connected.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Trunk and Reticulation Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938–39 ..	81,389	345,903	15.9	5,791	195	45.9	1,169	(b)
1953–54 ..	139,172	520,000	33.9	12,379	244	62.3	1,817	51,976
1954–55 ..	144,459	530,000	34.1	12,458	236	64.3	1,870	51,138
1955–56 ..	148,632	543,000	36.4	13,283	245	67.0	1,929	49,588
1956–57 ..	153,035	560,000	41.1	15,012	269	73.5	1,959	(b)
1957–58 ..	157,750	575,212	41.0	14,970	260	71.3	1,995	(b)

(a) Includes Ipswich and Redcliffe.

(b) Not available.

(c) *Sewerage.* The sewage treatment works is situated at Luggage Point at the entrance to the Brisbane River. An activated sludge system of treatment was originally planned but since the commencement of pumping operations a sedimentation plant only has been used. Sewerage rating at 30th June, 1958, was 2½d. in the £1 of unimproved capital value for improved properties, and 2½d. in the £1 for vacant lands, with a minimum charge of £6 6s. and £5 6s. respectively. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1938–39 and 1953–54 to 1957–58:—

SEWERAGE, BRISBANE: SERVICES.

Year.					Premises Connected.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Main, Branch, Reticulation etc., Sewers.
							Mill. Galls.	Miles.
1938–39	..	..	..	..	33,200	150,000	(a)	484
1953–54	..	..	..	..	48,700	183,000	4,868	647
1954–55	..	..	..	..	50,400	187,000	4,944	665
1955–56	..	..	..	..	53,100	196,000	6,222	696
1956–57	..	..	..	..	54,300	201,000	4,837	712
1957–58	..	..	..	..	55,846	206,630	5,316	731

(a) Not available.

(d) *Finances.* The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1938–39 and 1953–54 to 1957–58:—

WATER SUPPLY AND SEWERAGE, BRISBANE: FINANCES.

(£.)

Service and Year.		Gross Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(–).
				Working Expenses.	Interest, Redemption, etc., Charges.	Total. (a)	
Water Supply—							
1938–39	..	4,849,732	606,244	129,219	280,827	422,366	+ 183,878
1953–54	..	10,672,306	1,326,644	640,838	434,073	1,237,040	+ 89,604
1954–55	..	12,248,875	1,296,624	697,625	492,951	1,275,644	+ 20,980
1955–56	..	12,618,584	1,479,045	765,970	549,707	1,459,738	+ 19,307
1956–57	..	13,159,492	1,634,624	810,150	564,708	1,610,117	+ 24,507
1957–58	..	13,560,777	1,728,751	875,248	569,267	1,577,222	+ 151,529
Sewerage—							
1938–39	..	5,992,936	240,963	52,792	403,386	485,974	– 245,011
1953–54	..	11,898,902	603,141	163,397	349,692	552,651	+ 50,490
1954–55	..	12,705,307	578,257	166,609	391,744	628,081	– 49,824
1955–56	..	13,125,463	719,623	217,238	408,917	707,476	+ 12,147
1956–57	..	13,475,340	757,507	245,035	414,315	744,755	+ 12,752
1957–58	..	13,874,524	773,337	244,774	421,004	761,118	+ 12,219

(a) Total including other expenditure.

(ii) *Country Towns.* (a) *Water Supply.* In addition to the City of Brisbane, there were, at 30th June, 1958, 142 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1958, there were 18 cities and towns outside the Metropolitan Area—Barcaldine, Blackall, Bundaberg, Charleville, Cunnamulla, Goondiwindi, Hughenden, Ipswich, Kingaroy, Mackay, Maryborough, Mt. Isa, Quilpie, Rockhampton, Surat, Toowoomba, Townsville and Warwick—with sewerage systems.

Sewerage schemes were in course of construction at Bowen, Longreach, Redcliffe and Roma.

(c) *Finances.* The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to £1,775,708 in 1957–58. Expenditure amounted to £1,822,771, including £683,345 for debt charges. In addition, expenditure from loans and loan subsidy amounted to £1,916,363.

Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State were constructed and are maintained by the Engineering and Water Supply Department under the control of the Minister of Works. The works controlled comprise the Adelaide, Barossa, Baroota Creek, Beetaloo, Bundaleer, Tod River, Warren and other country water districts systems, the Morgan-Whyalla water supply system, the Adelaide metropolitan sewerage system, the Murray River Weirs water conservation, and the Metropolitan Flood Waters Scheme. In 1955–56, construction commenced on the Salisbury-Elizabeth Sewerage Scheme and early in 1959 sewerage of the town of Naracoorte and further extensions to the Port Lincoln sewerage scheme were commenced.

(ii) *South Australian Waterworks.* (a) *Services.* The table hereunder shows particulars of the area, capacity, etc., of combined metropolitan and country waterworks for the years 1938–39 and 1954–55 to 1958–59:—

WATERWORKS, SOUTH AUSTRALIA: SERVICES.

Year.	Assessments.(a)		Area of Districts Supplied. (a)	Capacity of Reservoirs, Tanks, etc.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Mill. gals.	Miles.	
1938–39.. ..	185,625	6,302,445	11,857,968	23,814	6,384	97,074
1954–55.. ..	239,389	15,307,092	12,100,784	24,014	7,700	134,058
1955–56.. ..	243,809	20,827,954	12,106,795	24,014	7,777	150,317
1956–57.. ..	250,306	22,687,480	12,860,508	24,015	7,916	166,350
1957–58.. ..	272,894	26,810,750	12,983,539	33,949	8,260	180,815
1958–59.. ..	(b)	(b)	13,003,305	33,954	8,537	(b)

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

(b) Not available.

(b) *Finances.* Figures for 1938–39 and 1954–55 to 1958–59 are shown in the following table:—

WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses.	Interest and Debt Redemption.	Total.	
1938–39 ..	14,649,052	653,842	241,684	651,970	893,654	239,812
1954–55 ..	37,353,231	1,725,017	1,855,026	1,095,914	2,950,940	1,225,923
1955–56 ..	41,501,133	2,082,694	1,920,666	1,328,068	3,248,734	1,166,040
1956–57 ..	45,239,197	2,318,072	2,295,444	1,485,486	3,780,930	1,462,858
1957–58 ..	49,161,026	3,028,193	2,944,648	1,740,157	4,684,805	1,656,612
1958–59 ..	54,301,234	3,106,348	2,768,406	1,933,850	4,702,256	1,595,908

(iii) *Adelaide Waterworks.* At 30th June, 1959, the Adelaide waterworks supplied a district of 185,826 acres. The capacity of its five reservoirs and storage tanks was 14,469 million gallons and there were 2,188 miles of mains.

The Mannum-Adelaide pipeline conveys water from the River Murray to the River Torrens and the River Onkaparinga and supplements the Metropolitan and Warren systems, serving country areas en route. Another major project, the construction of a large reservoir on the South Para River, is now completed. This reservoir provides additional storage to serve the lower northern areas of the State and makes some additional provision for the metropolitan area. The capacity of the new reservoir is about 10,000 million gallons.

Particulars of finances for the years 1938-39 and 1954-55 to 1958-59 are shown below:—

ADELAIDE WATERWORKS: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (—).
			Working Expenses. (a)	Interest.	Total.	
1938-39.. ..	4,676,110	446,273	111,161	202,279	313,440	+ 132,833
1954-55.. ..	17,922,472	1,062,519	923,222	511,127	1,434,349	— 371,830
1955-56.. ..	20,434,323	1,358,896	930,138	646,720	1,576,858	— 217,962
1956-57.. ..	23,115,689	1,492,610	1,218,285	759,012	1,977,297	— 484,687
1957-58.. ..	25,900,153	2,045,625	1,632,326	895,679	2,528,005	— 482,380
1958-59.. ..	28,719,570	2,101,768	1,450,994	1,019,331	2,470,325	— 368,557

(a) Includes debt redemption.

(iv) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg and Port Adelaide areas, with drainage areas of 112 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. The total quantity of sewage pumped by the various stations was 6,760 million gallons during 1958-59. Other particulars for 1938-39 and 1954-55 to 1958-59 are shown hereunder:—

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY.

Year.	Length of Sewers.	Number of Connexions.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (—)
					Working Expenses. (a)	Interest.	Total.	
	Miles.		£	£	£	£	£	£
1938-39 ..	923	80,745	3,361,034	268,880	77,023	150,273	227,296	+ 41,584
1954-55 ..	1,292	131,932	6,974,042	641,194	468,969	205,594	674,563	— 33,369
1955-56 ..	1,335	137,995	7,602,416	866,754	577,872	238,748	816,620	+ 50,134
1956-57 ..	1,370	143,743	8,273,936	1,167,508	648,999	263,270	912,269	+ 255,239
1957-58 ..	1,411	149,104	9,213,112	1,393,260	653,810	309,145	962,955	+ 430,305
1958-59 ..	1,444	154,636	10,437,696	1,471,067	685,104	349,312	1,034,416	+ 436,651

(a) Includes debt redemption.

(v) *Country Sewerage Schemes.* In 1958-59, the total length of the Salisbury sewerage scheme was 62 miles and the number of its connexions 5,294. The Port Lincoln scheme, which is one mile in length, had 40 connexions in 1958-59. The Naracoorte Sewerage scheme was proclaimed in January, 1959, the area being 2.43 square miles.

(vi) *Country Water Supply.* Water district systems outside Adelaide at 30th June, 1959, comprised an area of 12,817,479 acres, and the capacity of the reservoirs was 19,441 million gallons. These figures exclude the Morgan-Whyalla supply system, which obtains its water from the River Murray. The storage tanks of this system have a capacity of 44 million gallons.

The Uley-Wanilla sub-artesian basin has been utilized to augment the Tod River District supplies. Pumping began in 1947. In 1958-59, nine bores were in operation and 483 million gallons were pumped from the basin.

Construction work is proceeding on the scheme to reticulate water to Yorke Peninsula. The trunk main from Bundaleer Reservoir has been extended to Edithburgh and country lands are fully reticulated to about the latitude of Pine Point.

The following table gives financial information on country waterworks for 1938-39 and 1954-55 to 1958-59:—

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses. (a)	Interest.	Total.	
1938-39.. ..	10,015,613	207,569	130,523	449,691	580,214	372,645
1954-55.. ..	19,430,759	662,498	931,804	584,787	1,516,591	854,093
1955-56.. ..	21,066,810	723,798	990,528	681,348	1,671,876	948,078
1956-57.. ..	22,123,508	825,462	1,077,159	726,474	1,803,633	978,171
1957-58.. ..	23,260,873	982,568	1,312,322	844,478	2,156,800	1,174,232
1958-59.. ..	25,581,664	1,004,580	1,317,412	914,519	2,231,931	1,227,351

(a) Includes debt redemption.

(vii) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1959, being £2,603,449. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in (ii) above. During 1958-59, the water used from the system between Morgan and Whyalla amounted to 2,341 million gallons. Revenue for the year 1958-59 was £291,647, working expenses, etc., £273,254, interest charges, £84,425, and deficit, £66,032.

5. *Western Australia.*—(i) *General.* The water supply, sewerage and drainage systems of Western Australia are principally under the management of two State Government Departments, namely, the Metropolitan Water Supply, Sewerage and Drainage Department, having as its territory the metropolitan area centred on Perth and extending to Kwinana and Serpentine in the South, Marmion in the north and Greenmount on the east, and the Public Works and Country Water Supply Department, which controls the Comprehensive Water Supply Scheme (covering the Goldfields and Agricultural Areas Water Supply and the Great Southern Towns Water Supply) as well as supplies, from local sources, to fifty-five country towns not included in the scheme. Both Departments are administered under the portfolio of Minister for Works and Water Supplies.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, the Churchman Brook Reservoir, the Victoria Reservoir, the Wungong Brook Diversion Weir and, since November, 1957, a pipehead dam (capacity 850 million gallons) on the Serpentine River. The supply from these sources is supplemented as necessary from a number of artesian bores and from a

pipeline link with Mundaring Weir. The largest reservoir, the Canning Dam, has a capacity of 20,550 million gallons. Since the opening of the Serpentine pipehead dam, work has proceeded on the main Serpentine Reservoir designed to have an ultimate capacity of 39,000 million gallons, the estimated cost of the whole project being £9 million.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent directly to the ocean. Plant for secondary treatment at Subiaco is now being provided. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. There are three treatment works, situated at West Subiaco, Swanbourne and Fremantle.

(b) *Water Supply.* The following table shows particulars of water supply services for 1938-39 and 1954-55 to 1958-59.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES.

Year.	Number of Services.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	61,467	248,248	14.1	5,147	229	56.8	953	40,014
1954-55 ..	108,755	367,429	38.2	13,948	351	104.0	1,597	78,194
1955-56 ..	113,437	380,294	39.4	14,408	348	103.5	1,709	82,636
1956-57 ..	118,230	393,596	41.0	14,982	355	106.2	1,792	83,151
1957-58 ..	122,159	407,376	47.5	17,337	394	118.4	1,891	85,896
1958-59 ..	125,761	410,000	49.5	18,061	399	122.5	1,991	92,495

Water rating for 1958-59 was 1s. 6d. in the £1 on annual valuation.

(c) *Sewerage and Main Drainage.* Some particulars of the metropolitan sewerage and main drainage services for 1938-39 and 1954-55 to 1958-59 are shown below:—

METROPOLITAN SEWERAGE AND MAIN DRAINAGE, WESTERN AUSTRALIA: SERVICES.

Year.				Houses Connected.	Estimated Population Served.	Length of Sewers.	Length of Main Drains.
						Miles.	Miles.
1938-39 ..	..	..	..	36,652	162,457	444	31
1954-55 ..	..	..	..	58,543	232,000	675	34
1955-56 ..	..	..	..	60,702	240,860	692	34
1956-57 ..	..	..	..	62,282	246,900	709	37
1957-58 ..	..	..	..	63,969	253,800	713	66
1958-59 ..	..	..	..	64,944	257,500	714	67

Sewerage rating for 1958-59 was 1s. 9d. in the £1 on annual valuation, while metropolitan main drainage rating was 4d.

(d) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department for the years 1938-39 and 1954-55 to 1958-59:

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE,
WESTERN AUSTRALIA: FINANCES.**

(£.)

Service and Year.	Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(—)
			Working Expenses.	Interest and Debt Redem- ption.	Total.	
Water Supply—						
1938-39 ..	4,898,167	285,313	50,975	228,527	279,502	+ 5,811
1954-55 ..	11,255,210	946,922	498,254	428,169	926,423	+ 20,499
1955-56 ..	12,267,020	1,080,601	560,776	484,164	1,044,940	+ 35,661
1956-57 ..	13,672,321	1,153,737	548,832	598,101	1,146,933	+ 6,804
1957-58 ..	15,283,093	1,260,873	617,754	658,876	1,276,630	— 15,757
1958-59 ..	17,123,762	1,338,917	634,427	744,624	1,379,051	— 40,134
Sewerage—						
1938-39 ..	2,825,052	136,737	27,465	115,705	143,170	— 6,433
1954-55 ..	5,410,733	532,024	238,805	251,327	490,132	+ 41,892
1955-56 ..	5,628,243	608,678	288,679	264,780	553,459	+ 55,219
1956-57 ..	5,834,419	644,568	309,690	300,531	610,221	+ 34,347
1957-58 ..	6,108,598	698,734	333,039	306,545	639,584	+ 59,150
1958-59 ..	6,453,517	735,244	401,175	310,450	711,625	+ 23,619
Main Drainage—						
1938-39 ..	672,886	38,213	3,165	34,010	37,175	+ 1,038
1954-55 ..	759,936	69,778	15,256	30,263	45,519	+ 24,259
1955-56 ..	792,789	66,741	24,835	32,125	56,960	+ 9,781
1956-57 ..	1,009,399	69,255	26,594	39,133	65,727	+ 3,528
1957-58 ..	1,104,103	80,431	29,325	49,467	78,792	+ 1,639
1958-59 ..	1,350,083	88,846	40,684	55,090	95,774	— 6,928

(iii) *Country Water Supplies Controlled by Public Works Department.* Full information concerning country water supplies controlled by the Public Works Department may be found in Chapter VIII., Water Conservation and Irrigation, of this Year Book (see pp. 278-9).

6. *Tasmania.*—(i) *Waterworks.* At the end of 1958-59, there were 85 municipally operated waterworks in Tasmania. The capacity of the reservoirs was 1,750 million gallons, the estimated population served was 250,000 and the number of tenements served was 63,000. In addition, two regional schemes operated by the State Government were serving an estimated population of 35,000 in 9,000 tenements.

(ii) *Sewerage.* At the end of 1958-59, there were 11 municipal sewerage schemes in operation in Tasmania. They served an estimated population of 162,000 and the number of tenements served was 41,000.

§ 6. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of all vessels which entered the major ports in each State during the years 1956-57 and 1957-58 are shown in Chapter XIV.—Transport and Communication, (see p. 519). Particulars of overseas and interstate cargo discharged and shipped during 1957-58 are shown on page 520 of the same chapter.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Maritime Services Board of New South Wales is a corporate body of five Commissioners comprising three full-time members and two part-time members representing shipping and other interests. The Board was constituted on 1st February, 1936, under the Maritime Services Act 1935, to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft, and the examination and issue of

certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State.

At the Port of Sydney, the Board is also responsible for the provision of adequate wharfage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales, such work is undertaken by the Department of Public Works.

(b) *Port of Sydney.* The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tide) and the Eastern Channel 41 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated in close proximity to the business centre of the city, about four or five miles from the Heads. At present, there are 6 dolphin berths each 550 feet long, and 103 effective commercial cargo berths with a total length of 47,838 feet controlled by the Board. Accommodation for harbour craft amounts to 4,640 feet while the length of other berths including oil and private wharves totals 29,211 feet. Depth of water at wharves is up to 40 feet. Special facilities for the storage and handling of staple products such as wheat, wool, etc., are provided and modern plant has been installed for replenishing ships' bunkers with oil or coal.

Docking facilities are available for the largest vessel afloat. The Captain Cook Graving Dock, opened in March, 1945, ranks amongst the largest graving docks in the world being 1,139 feet by 147 feet 7½ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

The following table shows particulars of the finances of the Board in respect of the Port of Sydney for 1938-39 and 1953-54 to 1957-58:—

MARITIME SERVICES BOARD: FINANCES OF THE PORT OF SYDNEY.

(£.)

Year.	Total Capital Debt at 30th June.	Revenue.			Expenditure.			Surplus(+) or Deficit(-).
		Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Total. (a)	
1938-39	11,276,399	773,501	38,180	1,155,627	380,120	536,781	916,901	+ 238,726
1953-54	12,799,104	1,482,492	333,320	2,471,540	1,517,811	550,654	2,318,465	+ 153,075
1954-55	13,408,326	1,814,226	515,480	3,093,315	1,735,504	593,478	2,978,982	+ 114,333
1955-56	13,775,278	1,688,743	459,783	3,042,924	1,740,698	644,783	2,910,481	+ 132,443
1956-57	14,041,252	1,725,590	385,006	2,887,506	1,857,539	722,373	2,869,912	+ 17,594
1957-58	14,546,035	1,822,587	378,284	2,899,795	1,964,830	789,230	2,999,060	- 99,265

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account 1953-54, £250,000; 1954-55, £650,000; 1955-56, £525,000; 1956-57, £290,000; and 1957-58, £245,000.

Capital expenditure for each of the years 1938-39 and 1953-54 to 1957-58 was £468,026, £473,516, £599,752, £553,329, £716,597 and £706,931, respectively. Expenditure on renewals and replacements from the Renewals Fund Reserve Account was: 1953-54, £317,493; 1954-55, £306,542; 1955-56, £630,537; 1956-57, £684,210 and 1957-58, £568,301.

(c) *Port of Newcastle.* The Maritime Services Board of New South Wales is the port authority but other government bodies are responsible for certain functions and activities of a maritime character at Newcastle. These include—

- (i) The Department of Public Works, which is the constructing, dredging and maintenance authority at Newcastle as well as at other New South Wales ports except Sydney;

- (ii) The Department of Railways, which is responsible for the control of wharfage and shipping arrangements in connexion with the coal industry and the provision and maintenance of appliances necessary for the transport and shipment of coal.

An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,500 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfage accommodation amounts to 16,240 feet, the Maritime Services Board controlling 7,230 feet and the Railways Department 5,810 feet while 3,200 feet is privately owned. There are also several dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

(d) *Port Kembla.* As from 3rd May, 1948, the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. The Department, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of eight members appointed by the Governor has been formed to assist the Board in the operation of the port. It has an area of approximately 330 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling 6,800 feet has been provided for large ocean-going vessels. No cargo sheds are available as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfage for the steelworks in addition to general cargo berths.

(e) *Botany Bay.* The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately $1\frac{1}{2}$ miles wide, with a minimum depth of about 36 feet in the dredged swinging basin.

(f) *Other Ports.* In addition to the ports of Sydney, Newcastle, Port Kembla and Botany Bay, the Board controls 28 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Light-houses Act and the Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to £5,429,413 in 1957-58. This figure includes the Port of Sydney revenue (see table on p. 745) and State navigation service collections (£2,529,618 in 1957-58). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia, amounted to £518,883 in 1957-58.

2. *Victoria.*—(i) *Melbourne Harbor Trust.* (a) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, pages 970-2. The membership of the Board of the Melbourne Harbor Trust Commissioners was increased to five during 1954 by the appointment of a further part-time Commissioner to represent waterside workers' interests. At 31st December, 1958, the sheds available for wharfage accommodation had a length of 22,063 feet, covering an area of 1,633,762 square feet. The area of water in Port Philip Bay and the River Yarra under the control of the Trust is approximately 5,327 acres and the total length of wharves, piers and jetties in the port is 63,327 feet, giving an area of over 58 acres of wharfage,

and 56,148 feet of effective berthing space. During 1958, work was continued on the new berths at Appleton Dock (ultimately to have eighteen berths), Victoria Docks, South Wharf, Port Melbourne and Williamstown. A new dock in the river entrance area has been constructed for the use of the ferry service operating between Melbourne and Devonport, Tasmania, which commenced operations in September, 1959. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 37 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1939 and 1954 to 1958.

MELBOURNE HARBOR TRUST: FINANCES.
(£.)

Year.	Gross Loan Indebtedness at 31st December.	Revenue.		Expenditure.				Surplus (+) or Deficit (-)
		Wharfage and Tonnage Rates.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Depreciation, Renewals and Insurance Account.	Total. (a)	
1939 ..	4,018,527	689,100	843,899	282,533	270,650	129,160	837,577	+ 6,322
1954 ..	9,641,361	1,800,811	2,593,347	1,232,574	418,818	479,393	2,509,947	+ 83,400
1955 ..	9,978,842	2,120,780	3,019,048	1,475,467	446,348	532,372	2,906,406	+ 112,642
1956 ..	11,296,811	1,841,176	2,676,698	1,649,047	483,905	145,825	2,662,047	+ 14,651
1957 ..	12,175,428	1,882,501	2,746,513	1,557,933	520,223	250,938	2,718,159	+ 28,354
1958 ..	12,907,279	2,043,848	3,020,913	1,310,119	603,899	631,988	2,958,686	+ 62,227

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust:—1939, £155,234; 1954, £379,162; 1955, £452,219; 1956, £383,270; 1957, £389,065; 1958, £412,680; Excludes capital expenditure:—1939, £128,567; 1954, £1,255,625; 1955, £1,509,665; 1956, £1,609,928; 1957, £1,054,236; 1958, £1,658,589.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. One of these, the chairman, is on a full time basis.

At the end of 1959, there were 17 effective berths in the port while two berths at Refinery Pier were under construction and a further berth for general cargo is in the course of planning. Three berths have a depth of 36 feet low water and all others (except Yarra Pier 29 feet) have a depth of 32 feet low water.

During the year 1958, total trade of the port aggregated 4,548,501 tons which was carried in 487 vessels of a total gross tonnage of 3,820,848.

Revenue for the year 1958 was £996,594 and expenditure from revenue totalled £575,701. At 31st December, 1958, the value of the Trust's fixed assets was £7,434,017 and loans outstanding amounted to £2,886,248.

(iii) *Portland Harbor Trust.* Construction of an all weather deep-sea port of three berths with a low water depth of 36 feet was commenced following the proclamation of the Portland Harbor Trust Act on 18th May, 1951. Capital expenditure up to £5,000,000 was authorized.

Operating revenue for the year ended 30th June, 1958, was £45,041 and revenue expenditure was £35,429. The value of the Trust's fixed assets, less depreciation, was £3,500,109 at 30th June, 1958, and loans and advances outstanding amounted to £3,647,836.

(iv) *Other Victorian Ports.* There are no other Victorian ports of more than minor importance.

3. *Queensland.*—(i) *General.* The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly, because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1938-39 and 1953-54 to 1957-58 are shown below:—

BRISBANE HARBOUR: FINANCES.
(£'000.)

Year.	Loan Indebtedness at 30th June.	Receipts.		Payments.	
		Harbour Dues.	Total.	Working Expenses.(a)	Total.
1938-39	1,179	165	173	36	112
1953-54	2,528	603	753	460	611
1954-55	2,633	688	853	522	693
1955-56	2,899	701	817	582	772
1956-57	3,011	671	918	843	1,048
1957-58	3,042	696	938	731	944

(a) Excludes Interest and Redemption.

In addition to Brisbane Harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, the Brisbane River, and ten smaller harbours not administered by harbour boards.

(iii) *Harbour Boards.* Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. From 1st January, 1953, the harbour boards adopted the financial year ended 30th June for accounting purposes instead of the calendar year as previously. Finances for each port for the year ended 30th June, 1958, are shown below, together with a summary for the year 1939, for the period of eighteen months ended 30th June, 1954 and for the years ended 30th June, 1955, 1956 and 1957.

HARBOUR BOARDS, QUEENSLAND: FINANCES.
(£.)

Harbour Board.	Loan Indebted- ness at 30th June. (a)	Revenue.		Expenditure (excluding Loan).		Surplus(+) or Deficit(-).
		Wharf- age and Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption). (b)	
Bowen	397,428	44,648	53,201	34,753	60,461	— 7,260
Bundaberg	1,368,800	4,905	99,414	9,837	105,388	— 5,974
Cairns	238,281	188,693	246,948	206,681	256,315	— 9,367
Gladstone	555,843	42,355	88,441	32,862	86,742	+ 1,699
Mackay	1,372,442	206,745	350,067	108,092	384,315	— 34,248
Rockhampton	545,731	53,349	66,856	40,972	67,968	— 1,112
Townsville	956,647	234,741	321,654	169,884	229,167	+ 92,487
Total, 1957-58 ..	5,435,172	775,436	1,226,581	603,081	1,190,356	+ 36,225
„ 1956-57 ..	3,567,335	757,778	1,005,986	578,259	1,170,528	— 164,542
„ 1955-56 ..	2,885,528	720,642	955,846	512,776	1,361,568	— 405,722
„ 1954-55 ..	2,807,527	766,504	1,108,613	530,541	996,604	+ 112,009
„ 1954(c) ..	2,713,679	955,464	1,413,894	789,346	1,167,936	+ 245,958
1939	1,548,144	249,510	401,439	139,752	343,083	+ 58,356

(a) 1939 at 31st December. (b) Includes expenditure on capital works from accumulated revenue.
(c) Eighteen months ended 30th June, 1954.

4. *South Australia.*—*The South Australian Harbors Board.* All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the five deep sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln and Thevenard. At a few ports, the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water ordinary spring tide) at the wharves of the main ports range from 20 to 24 feet at Port Pirie to 35 feet at Port Adelaide (Outer Harbour). The following table shows the finances of the Board for 1938–39 and 1954–55 to 1958–59:—

THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES.

(£.)

Year.	Capital at 30th June. (a)	Revenue.	Expenditure from Revenue.				Surplus (+) or Deficit (—)
			Working Expenses.	Interest.	Debt Redemption.	Total.	
1938–39 ..	8,026,441	664,915	205,848	326,719	50,000	582,567	+ 82,348
1954–55 ..	11,604,213	1,842,796	1,315,349	352,005	..	1,667,354	+ 175,442
1955–56 ..	12,366,653	1,920,340	1,451,296	404,188	..	1,855,484	+ 64,856
1956–57 ..	13,232,185	2,112,718	1,427,882	434,042	..	1,861,924	+ 250,794
1957–58 ..	14,189,715	2,119,826	1,487,014	505,322	..	1,992,336	+ 127,490
1958–59 ..	15,325,443	2,156,669	1,464,006	550,364	..	2,014,370	+ 142,299

(a) State Treasurer's Funds and Reserve employed.

5. *Western Australia.*—(i) *Fremantle Harbour Trust.* The Port of Fremantle is operated and controlled by the Fremantle Harbour Trust, a body corporate administered by a Board of five Commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an Inner and an Outer Harbour. The Inner Harbour includes 18 deep water land-backed berths, providing more than 650,000 sq. ft. of covered storage space and 11,148 feet of wharf berth accommodation. All Inner Harbour berths are dredged to a depth of 36 feet. The Outer Harbour includes three main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep water jetties are available in the Outer Harbour including the Oil Refinery Jetties in Cockburn Sound. Ocean going deep draft ships enter the Sound by means of channels dredged through Success and Parmelia Banks to a low water depth of 38 feet and a bottom width of 500 feet. The depth of water at the Refinery Jetties is a minimum of 44 feet.

Gross earnings for the years 1957–58 and 1958–59 amounted to £2,577,755 and £2,510,022 respectively, working expenses to £2,017,798 and £2,052,424, interest charges to £216,839 and £234,839, debt redemption to £59,414 and £64,384 and renewals fund to £2,000 each year. Special loan redemptions were £246,002 and £275,131 and net capital totalled £6,813,243 and £7,024,892.

(ii) *Albany Harbour Board.* The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 34 feet. On approaches to wharf berths the depth is 30 feet and dredging to accomplish a depth of 34 feet is being carried out. Wharf accommodation consists of 1,115 feet and in addition the Deepwater Jetty has 2,500 feet of accommodation. Gross earnings for the years 1957–58 and 1958–59 amounted to £103,573 and £132,460 respectively, working expenses £50,196 and £60,802, interest and sinking fund charges, £81,648 and £85,592, and amounts debited to loan capital account, £1,687,144 and £1,694,303.

(iii) *Bunbury Harbour Board.* The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is 30 feet and berthing accommodation is 3,700 feet. Gross earnings for the years 1957–58 and 1958–59 amounted to £73,811 and £84,576 respectively, working expenses £60,239 and £83,379, interest and sinking fund charges £35,440 and £71,693, and amounts debited to loan capital account, £1,593,176 and £1,702,799.

(iv) *Other Ports.* The following ports are controlled by the State Government Harbour and Lights Department:—Geraldton, Yampi, Port Hedland, Carnarvon, Wyndham, Derby, Point Samson, Busselton, Onslow and Broome. The Port of Esperance is under the control of the Railways Commission.

6. *Tasmania.*—There are eight marine boards and two harbour trusts in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie and Wynyard (Table Cape), Devonport, Strahan, Currie (King Island), and White-mark (Flinders Island) and the harbour trusts those of Smithton and Leven. Aggregate receipts of revenue accounts of all these authorities during the year 1957–58 were £1,212,794, and expenditures £1,004,255 including loan charges £204,060. The total receipts of the Hobart Marine Board during 1957–58 were £530,900, loan charges amounted to £72,068 and total expenditure to £424,819. Launceston Marine Board receipts during 1957–58 amounted to £298,877, loan charges to £24,907 and total expenditure to £248,811. Loan indebtedness of all marine boards and trusts at 30th June, 1958, was £2,937,164, of which £1,027,526 was in respect of Hobart (including Port Huon Wharf) and £309,003 in respect of Launceston.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable oversea shipping. Depths of water at wharves vary, in general, between 16 and 34 feet (low water ordinary spring tide), but at Hobart there is a depth of water of from 30 to 52 feet.

§ 7. Fire Brigades.

1. *New South Wales.*—A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act 1909–1958, and 158 fire districts had been constituted at the end of 1958. Up to the end of 1949, the cost of maintenance of fire brigades was borne in proportions of one quarter, one quarter, and one half respectively by the Government, the municipalities, and the insurance companies concerned, and the expenditure was so regulated that the proportion payable by the councils in a fire district should not, except in special circumstances, exceed the amount obtainable from 4d. in the £1 rate on the unimproved capital value of rateable land in the fire district. In June, 1949, legislation was introduced (i) increasing the limit of the Board's borrowing power from £250,000 to £500,000, (ii) providing for the varying of the maximum rate that may be levied by councils and (iii) altering the basis of contributions so that from 1st January, 1950, local councils and the Government will each pay one-eighth and the insurance companies three-quarters. Legislation assented to on 31st March, 1958, increased the limit of the Board's borrowing power to £1,000,000, provided for the contributions payable by insurance companies to be assessed on premiums received in the State as a whole, and provided for appeals by insurance companies against assessments in certain cases.

At 31st December, 1958, the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 368 officers and 1,103 permanent and 2,632 volunteer firemen. Corresponding figures for the Sydney Fire District were 299, 1,012 and 359. The revenue for the year 1958 was £2,773,122, made up as follows:—From the Government, £344,745, municipalities and shires, £344,745; fire insurance companies and firms, £2,068,470; and from other sources, £15,162. The disbursements for the year were £2,728,222.

Other legislation, introduced in September, 1949, to improve and modernize the law dealing with the prevention of bush fires and to build up the organization of the bush fire-fighting services, provided for the establishment of Fire Regions and a Bush Fire Fighting Fund to be financed from contributions by the Government, councils and insurance companies in the proportion of one-quarter, one-quarter and one-half, respectively. The contribution of any council shall not exceed one-twentieth of a penny in the £1 on the unimproved capital value of rateable land in the area of the council not being land within a fire district constituted under the Fire Brigades Act 1908–1958. At 30th June, 1959, Volunteer Brigades numbered 2,500 with an active membership in excess of 60,000 persons. Up to 30th June, 1959, expenditure from the Fund for equipment amounted to £1,112,806.

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provided for a Metropolitan Fire Brigades Board and a Country Fire Brigades Board each consisting of nine members. In December, 1944, the latter Board was superseded by the Country Fire Authority under an Act of that title, and the number of members was increased to ten. In December, 1954, the number of members of the Metropolitan Fire Brigades Board was increased from nine to ten to include an employees' representative.

(ii) *Metropolitan Fire Brigades Board.* Since 1st October, 1952, the Metropolitan Fire Brigades Board has received contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. Prior to 1st October, 1952, the Board received contributions in equal proportions from the Treasury, the municipalities and the insurance companies. On 30th June, 1958, the Board had under its control 43 stations, 824 permanent staff, 184 special service and clerical, etc., staff, and 14 part-time firemen. The total receipts for 1957–58 were £1,294,699 comprising contributions, £1,033,956, receipts for services, £141,122 and interest and sundries, £119,621. The expenditure was £1,468,696.

(iii) *Country Fire Authority.* This authority, constituted in 1944, is responsible for the prevention and suppression of fires in the "country area of Victoria", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority has received contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury as from 1st January, 1954. Prior to that date the Treasury contributed two-thirds while the insurance companies contributed one-third. At 30th June, 1958, the Act applied to 189 insurance companies, 203 urban and 1,028 rural fire brigades. The effective registered strength of the brigades was 98,307 members.

Income for the year 1957–58 amounted to £525,226. Total expenditure other than loan amounted to £472,244.

3. *Queensland.*—(i) *General.* Fire Districts are constituted under the Acts of 1920–1956. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade, following the 1956 amendment of the Act which increased the share of the insurance companies, is proportioned as follows:—The Treasury one-seventh insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to Fire Brigades.

(ii) *Fire Brigade Boards.* At 30th June, 1958, there were 75 Fire Brigade Boards. The total number of stations was 134 and full-time staff numbered 741, including 17 administrative, 152 officers and 572 firemen. Volunteers numbered 265. Part-time staff numbered 781 including 73 administrative, 105 officers and 603 firemen. The total revenue for the year 1957–58 was £972,830, received mainly from the following sources:—Government £131,246, local authorities £131,025, insurance companies £656,094. Loan receipts (Government and other) were £166,863. The total expenditure for the year was £995,283, the chief items being salaries and wages £737,016 and interest and redemption of loans £63,653.

4. *South Australia.*—The Fire Brigades Act 1936–1958 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury (subject to certain limits when the contribution exceeds £10,000), five-ninths by insurance companies, and two-ninths by the municipalities concerned. At 30th June, 1959, there were altogether 35 fire brigade stations, of which 12 were metropolitan and 23 country.

The authorized strength of the permanent staff was 386, including 267 officers and men, 89 country auxiliary firemen and 30 other employees (including maintenance workers). The total revenue for the year 1958–59 was £409,875, including contributions of £349,551 made up as follows:—insurance companies £210,495, Treasury £54,858 and municipalities £84,198. The Treasury contribution includes an additional grant of £42,664.

5. *Western Australia.*—In 1942, certain municipal and road board districts were constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 36 fire districts at 30th September, 1958. The contribution to the Board is made in the proportion of two-ninths from the Government, two-ninths from local government

authorities, and five-ninths from insurance companies. The number of local government authorities and insurance companies who contributed numbered 57 and 145 respectively. The brigades, throughout the State, controlled by the Western Australian Fire Brigades Board at 30th September, 1958, numbered 53, with a staff of 1,590 including 264 permanent officers and firemen and 1,326 volunteer brigade officers and firemen. The revenue for the year ended 30th September, 1958, was £443,709 and the expenditure £450,926.

Under the Bush Fires Act, a Bush Fires Board (appointed April 1955 and superseding the Rural Fires Prevention Advisory Committee) consisting of ten members, five of whom are nominated by the Road Board Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 1,356 at 30th June, 1958, and the establishment of bush fire brigades, the number of which was 636 at 30th June, 1958. Many individual brigades are large organizations with numerous self-contained sections.

6. *Tasmania.*—The Fire Brigades Act 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigades boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils representatives and three persons elected by the Insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one-third each from the Treasury, the municipalities, and the insurance companies concerned. The cost for the year 1957–58 amounted to £150,000. There were, at 30th June, 1958, 24 brigades controlling 36 stations and their aggregate staffs numbered 526, including 87 permanent officers and 439 part-time firemen, including officers.

CHAPTER XX.

PRIVATE FINANCE.

A. CURRENCY.

§ 1. General.

The Australian monetary system is based on the British system, of which the unit is the pound (£) divided into 20 shillings (s.) each of 12 pence (d.). When the Australian currency was introduced in 1909 the Australian pound was specified as equivalent to 123.27447 grains of gold $11\frac{1}{12}$ ths fine or 113.002 grains of fine gold and, until the depression in 1930, was identical with the pound sterling. There was a gradual depreciation of the Australian pound in terms of sterling from the beginning of 1930 until 3rd December, 1931, when it was stabilized at the rate of £125 Australian = £100 sterling. This relationship has been maintained until the present time. Following the depreciation, no action was taken to define the value of the Australian pound in terms of gold until 5th August, 1947, when the Australian Government advised the International Monetary Fund, in terms of the membership agreement, that the par value of the Australian pound was 2.86507 grammes (44.2148 grains) of fine gold. From 18th September, 1949, this was reduced to 1.99062 grammes (30.720 grains) of fine gold.

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, notes issued by the banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution, the control of currency, coinage and legal tender and the issue of paper money was vested in the Commonwealth. The Commonwealth assumed these powers by enacting the Coinage Act 1909 and the Australian Notes Act 1910.

Australian notes are legal tender in Australia for any amount. Australian silver coins are legal tender for any amount not exceeding forty shillings and Australian bronze coins are legal tender for any amount not exceeding one shilling.

§ 2. Coinage.

1. Coins in Circulation.—Brief historical notes relating to the Australian Coinage are given in Official Year Book No. 37, pages 557 and 558. For weight, metal, composition, etc., of Australian coins in circulation *see* Official Year Book No. 39, page 697.

The silver coins issued prior to July, 1947, have a millesimal fineness of 925 (thirty-seven fortieths silver and three fortieths copper) and those issued since 1st July, 1947, (dated 1946 and later) have a millesimal fineness of 500 (one-half silver and one-half other metals).

From 1910 to 1916, Australian coins were minted in England by the Royal Mint, London, and the Mint, Birmingham Ltd., and in 1916 and 1917 by the Indian Mints. The minting of Australian coins was undertaken by the Australian Mints in 1916 and coins have been minted at the Melbourne branch of the Royal Mint from 1916 to the present time, at the Sydney branch from 1919 until that Mint closed in 1926, and at the Perth branch in 1922 and from 1940 to the present time.

During the 1939–45 War, the two Australian Mints were unable to meet the demand for Australian coins and some coins were minted in the United States of America and India. In 1951–52 and 1952–53, some coins were minted at the Royal Mint, London, to meet the heavy demand for coins. Details of Australian coins obtained from each mint to 30th June, 1959, are as follows:—Melbourne, £44,890,000; Perth, £1,465,000; Sydney, £488,000; United Kingdom Mints, £3,016,000; United States Mints, £6,000,000; Indian Mints, £169,000; Total, £56,028,000.

2. Issues of Australian Coins.—The net issues of Australian silver and bronze coin from 1910 to 30th June, 1959, were:—Crown (5s.), £276,000; Florin (2s.), £18,795,000; Shilling (1s.) £7,456,000; Sixpence (6d.), £5,201,000; Threepence (3d.), £5,843,000;

Total silver coin, £37,513,000; Penny (1d.), £2,371,000; Half-penny ($\frac{1}{2}$ d.), £709,000; Total bronze coin, £3,080,000. Except in the total, no allowance has been made for £58,000 worth of damaged silver coin, for which denominations are not available, withdrawn since 1910.

3. **Profits on Coinage of Silver and Bronze.**—Australian silver and bronze coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table, details are given of the value of coins issued, the cost of bullion, the cost of minting and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1938–39 and 1954–55 to 1958–59.

AUSTRALIAN SILVER AND BRONZE COINS: PROFITS FROM ISSUE.
(£.)

Year.			Coin Issued. (a)	Cost of Bullion.	Gross Profit.	Cost of Minting and Sundry Charges.	Net Profit.
SILVER COIN.							
1938–39	..	..	219,600	81,314	138,286	18,459	119,827
1954–55	..	..	2,127,800	1,187,041	940,759	172,552	768,207
1955–56	..	..	915,900	514,848	401,052	95,770	305,282
1956–57	..	..	1,932,962	1,101,740	831,222	245,241	585,981
1957–58	..	..	1,509,885	1,032,098	477,787	205,916	271,871
1958–59	..	..	1,304,682	933,065	371,617	139,948	231,669
BRONZE COIN.							
1938–39	..	..	41,800	7,838	33,962	26,025	7,937
1954–55	..	..	14,616	12,666	1,950	45,588	— 43,638
1955–56	..	..	174,889	163,393	11,496	117,347	— 105,851
1956–57	..	..	51,560	61,957	— 10,397	58,788	— 69,185
1957–58	..	..	67,785	59,987	7,798	56,985	— 49,187
1958–59	..	..	78,906	61,786	17,120	56,985	— 39,865
TOTAL.							
1938–39	..	..	261,400	89,152	172,248	44,484	127,764
1954–55	..	..	2,142,416	1,199,707	942,709	218,140	724,569
1955–56	..	..	1,090,789	678,241	412,548	213,117	199,431
1956–57	..	..	1,984,522	1,163,697	820,825	304,029	516,796
1957–58	..	..	1,577,670	1,092,085	485,585	262,901	222,684
1958–59	..	..	1,383,588	994,851	388,737	196,933	191,804

(a) Includes selected and proof pieces.

NOTE.—Minus sign (—) denotes a loss.

4. **Australian Mints.**—(i) *General.* Soon after the discovery of gold in Australia, a branch of the Royal Mint was established in Sydney. The formal opening took place on 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth Branch on 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid to the respective State Treasuries. Owing to losses incurred in its operations, the Sydney branch was closed at the end of 1926.

Since their establishment, the Australian branches of the Royal Mint have been primarily concerned with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold

coins was discontinued in September, 1931. In 1916, the Melbourne branch took over the minting of Australian silver and bronze coins from the Royal Mint, London. Australian coins were also minted at the Sydney Mint from 1919 to 1926 and at the Perth Mint in 1922 and from 1940 to the present time. The Melbourne branch has also minted token coins for the Territory of New Guinea and for New Zealand.

(ii) *Gold Receipts and Issues.* (a) *Receipts.* The receipts of gold at Australian mints during 1958 amounted to 1,003,758 fine ounces (Melbourne, 162,465 fine ounces; Perth, 841,293 fine ounces).

(b) *Issues.* The Australian mints issue gold bullion for the use of local manufacturers (jewellers, dentists, etc.) and for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting and issue of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped to India in 10-oz. bars. Since early in the 1939-45 War, all gold has been acquired by the Reserve Bank and the export and use of gold has been subject to regulation by the Commonwealth Government. From December, 1951, export of a proportion of newly-mined gold for sale on premium markets overseas was permitted. The issues from Australian mints during 1958 amounted to 1,004,519 fine ounces (Melbourne, 162,515 fine ounces; Perth, 842,004 fine ounces).

5. *Price of Gold.*—The following table shows the average prices of gold and the average value of the sovereign in London and Australia for the years 1938-39 and 1954-55 to 1958-59. The average price of gold in Australia is based on the Reserve Bank's buying price for gold lodged with the mints.

PRICE OF GOLD: LONDON AND AUSTRALIA.

Period.	London.		Australia.			
	Average price per fine oz.	Average value of Sovereign.	Average price per fine oz.	Sovereign.		Equivalent to a premium of—
				Average value.		
	£stg. s. d.	£stg. s. d.	£A. s. d.	£A. s. d.		%
1938-39.. ..	7 6 9	1 14 7	9 2 9	2 3 0		115.0
1954-55.. ..	12 10 9	2 18 10	15 12 6	3 12 6		267.8
1955-56.. ..	12 9 11	2 18 10	15 12 6	3 12 6		267.8
1956-57.. ..	12 10 9	2 18 10	15 12 6	3 12 6		267.8
1957-58.. ..	12 9 10	2 18 10	15 12 6	3 12 6		267.8
1958-59.. ..	12 9 11	2 18 10	15 12 6	3 12 6		267.8

In December, 1951, arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements, gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. The gold can be sold only against payment in United States dollars. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August, 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats ($\frac{11}{12}$ ths.).

The average prices per fine ounce in Australian currency (f.o.b.) obtained for gold exported under this scheme for each of the months during 1958-59 for which there were sales were:—July, £15 13s. 10d.; August, £15 13s. 8d.; September, £15 13s. 9d.

§ 3. Notes.

1. *General.*—Brief historical notes relating to the circulation and issue of notes in Australia are given in Official Year Book No. 37, pages 561 and 562. The issue of notes intended for circulation as money other than by the Reserve Bank is prohibited.

2. **The Australian Note Issue.**—(i) *General.* Notes in circulation in Australia are issued by the Reserve Bank through the Note Issue Department. The Bank is authorized to issue Australian notes in denominations of 5s., 10s., £1, £5, £10 and any multiple of £10. The Reserve Bank is not required to hold a specific reserve in gold against the note issue but the assets of the Note Issue Department must be held or invested in gold, on deposit with any bank, or in securities of the Government of the United Kingdom, the Commonwealth, or a State. Under the Reserve Bank Act 1959, the profits of the Note Issue Department are paid to the Commonwealth.

Australian notes are legal tender to any amount within Australia and have been issued in denominations of 10s., £1, £5, £10, £20, £50, £100 and £1,000. Notes of denominations higher than £10, however, have not been issued to the public since 1945.

(ii) *Australian Notes in Circulation.* Particulars of the average values of notes in circulation for the years 1938–39 and 1954–55 to 1958–59 are given in the following table:—

AUSTRALIAN NOTE ISSUE.

(£'000.)

Denomination.	Average of monthly statements for year—(a)					
	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
10s.	4,141	10,175	10,496	10,867	11,170	11,507
£1	21,124	69,646	70,564	72,384	69,704	68,919
£5	11,718	176,383	180,565	171,067	174,430	177,931
£10	5,126	101,443	113,809	131,569	135,967	139,205
£20	111	6	4	4	4	3
£50	1,259	49	46	44	42	37
£100	2,238	55	50	49	47	42
£1,000	2,855	799	802	901	601	634
<i>Held by Banks</i> ..	15,454	40,880	42,909	44,433	45,490	46,777
<i>Held by Public</i> ..	33,118	317,676	333,427	342,452	346,475	351,501
Total	48,572	358,556	376,336	386,885	391,965	398,278

(a) Last Monday in month for 1938–39, last Wednesday in month for other years.

(iii) *Reserve Bank (formerly the Commonwealth Bank)—Note Issue Department.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the then Commonwealth Bank as at 30th June, 1958 and 1959:—

NOTE ISSUE DEPARTMENT: LIABILITIES AND ASSETS, 30th JUNE.

(£'000.)

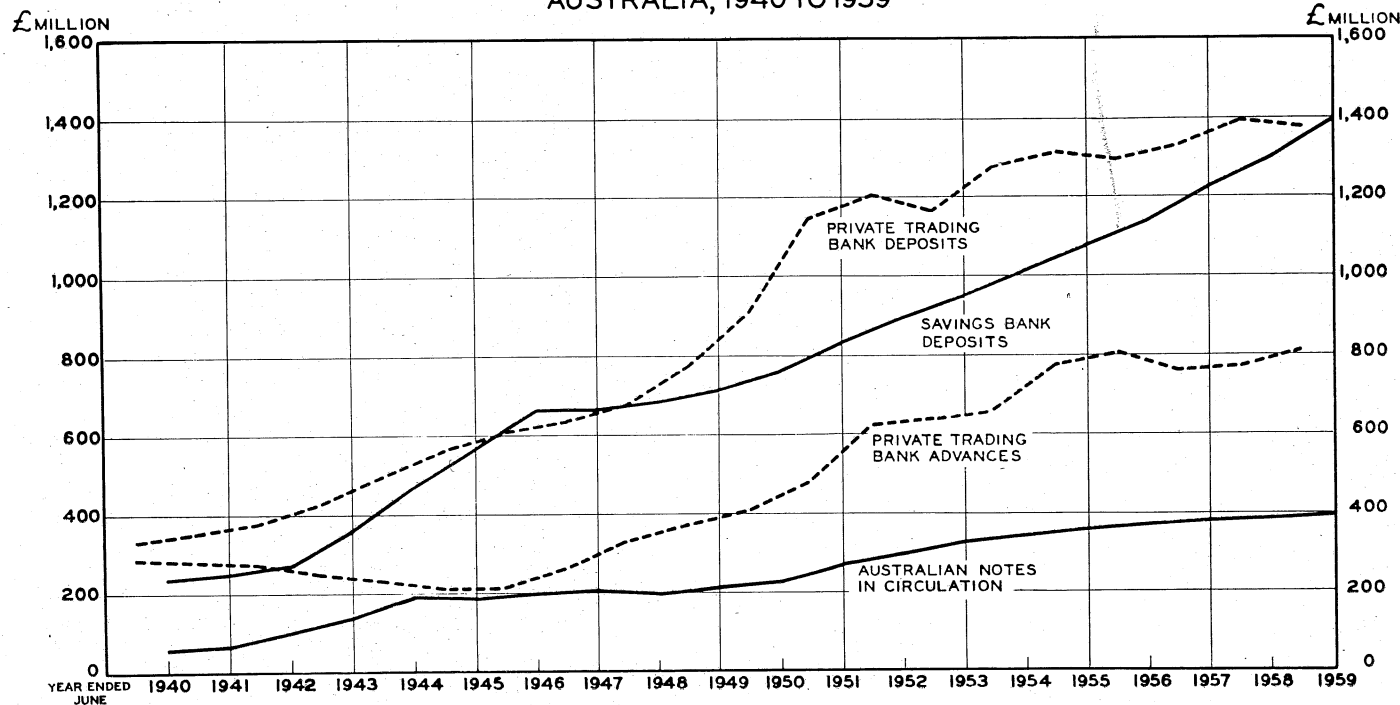
Liabilities.	1958.	1959.	Assets.	1958.	1959.
Notes on Issue(a) ..	384,549	391,457	Gold and Balances held abroad (including money at short call)	133,382	125,416
Special Reserve—Premium on gold sold	4,755	4,755	Government Securities (including Commonwealth Treasury Bills)	265,506	280,456
Other Liabilities(a) ..	9,640	9,717	Other Assets ..	56	57
Total Liabilities ..	398,944	405,929	Total Assets ..	398,944	405,929

(a) Notes of a denomination not exceeding one pound which have been on issue for more than twenty years, and notes of a denomination exceeding one pound which have been on issue for more than 40 years are not included in the item "Notes on Issue" but are included in the item "Other Liabilities".

In 1958–59, the net profits of the Note Issue Department amounted to £10,935,095 and were paid to the Commonwealth Consolidated Revenue Fund.

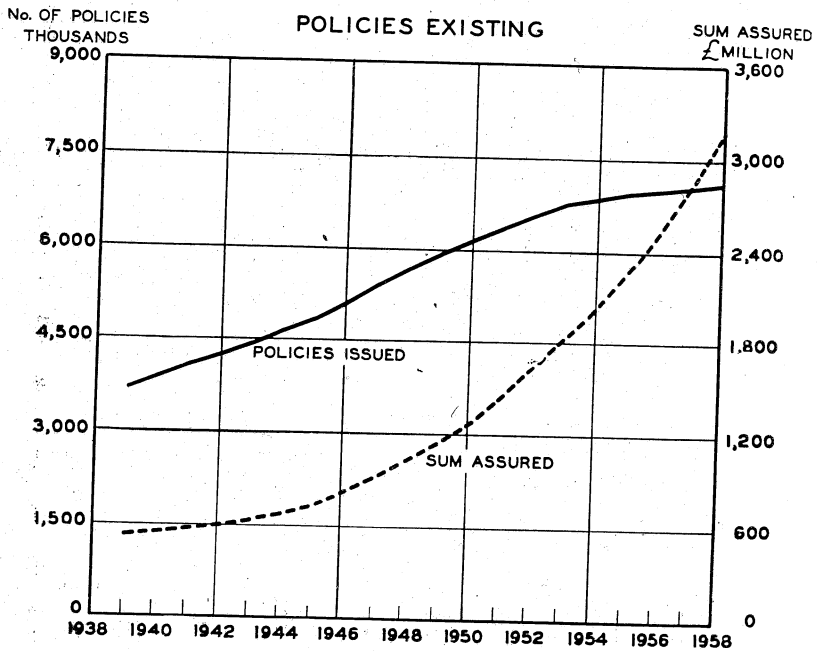
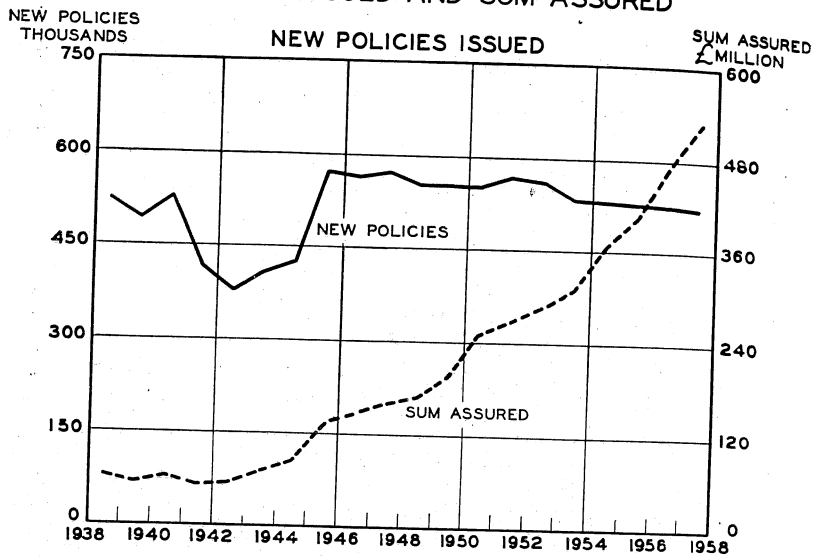
BANK DEPOSITS AND ADVANCES AND NOTES IN CIRCULATION

AUSTRALIA, 1940 TO 1959



LIFE ASSURANCE: AUSTRALIA 1939 TO 1958

POLICIES ISSUED AND SUM ASSURED



B. BANKING.

§ 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money". The principal Commonwealth Acts at present in force relating to Banking are—

- (a) *The Banking Act 1959*, which provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth;
- (b) *The Reserve Bank Act 1959*, which provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue; and
- (c) *The Commonwealth Banks Act 1959*, which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia and Commonwealth Development Bank of Australia.

The Banking Act 1959, which replaced the Banking Act 1945–1953, was assented to on 23rd April, 1959, and came into operation on 14th January, 1960. It applies to all banks, except State banks trading in their own State, operating in Australia or the Territories of the Commonwealth. Apart from the replacement of the Special Accounts provisions of the previous Act with a system of Statutory Reserve Deposits and a recasting of the relevant parts of the Act to make provision for the regulation of savings bank business, the provisions of the Act, which are summarized below, are essentially the same as those contained in the previous Act. The main provisions of the Act are as follows:—

- (a) *Authority to Carry on Banking Business.* Banking business can only be carried on by a body corporate in possession of an authority in writing granted by the Governor-General. A company which is not a bank but which conducts some banking business may be granted an exemption from some or all of the provisions of the Act.
- (b) *Protection of Depositors.* Provision is made for the banks to supply to the Reserve Bank such information relating to their financial position as required. If it appears that a bank may be unable to meet its obligations or is about to suspend payments the Reserve Bank may assume control of and carry on the business of that bank.
- (c) *Statutory Reserve Deposits.* Each trading bank is required to maintain a Statutory Reserve Deposit Account with the Reserve Bank and to have on deposit in that account such percentage of its Australian deposits (known as the statutory reserve deposit ratio) as is determined from time to time by the Reserve Bank. On giving one day's notice, the Reserve Bank may vary this ratio provided it is not increased above 25 per cent. and on giving 45 days' notice the Reserve Bank may increase the ratio above 25 per cent. A ratio remains in force until it is replaced by another ratio, provided that any ratio above 25 per cent. cannot remain in force for longer than a period of six months and for succeeding periods of three months unless the Reserve Bank gives notice of an extension at least 45 days before the end of each period. The same ratio is to apply to all banks except certain prescribed banks. Interest is to be paid on Statutory Reserve Deposit Accounts at a rate determined from time to time by the Reserve Bank with the approval of the Treasurer. The Reserve Bank is required to inform the trading banks at least once in every quarter of its expected policy with respect to statutory reserve deposit ratios.
- (d) *Mobilization of Foreign Currency.* All banks may be required to transfer to the Reserve Bank a proportion (determined by the Reserve Bank) of their excess receipts of foreign currency in respect of their Australian business during any period.

- (e) *Advances.* The Reserve Bank may determine a general policy to be followed by banks in making advances.
- (f) *Special Provisions with Respect to Savings Banks.* A savings bank shall at all times maintain in prescribed investments an amount that together with cash on hand in Australia is not less than the amount on deposit in Australia with the savings bank. The prescribed investments are: deposits with the Reserve Bank, deposits with or loans to other banks, Commonwealth or State securities, securities issued or guaranteed by a Commonwealth or State authority, loans guaranteed by the Commonwealth or a State, loans for housing or other purposes on the security of land, and loans to authorized dealers in the short-term money market on the security of securities issued by the Commonwealth. A savings bank must hold at least 70 per cent. of its depositors' funds in cash, deposits with the Reserve Bank, Commonwealth or State securities and securities issued by or guaranteed by a Commonwealth or State authority and must hold at least 10 per cent. in deposits with the Reserve Bank, in Treasury Bills and Seasonal Securities. A savings bank may not accept deposits from a profit-making body unless that body is acting in a trustee capacity for a non-profit-making beneficiary, nor allow cheques to be drawn on savings bank accounts other than by local government authorities, friendly societies, etc., and companies acting in the above capacity.
- (g) *Foreign Exchange.* The Governor-General may make regulations for the control of foreign exchange including the fixing of rates of exchange.
- (h) *Gold.* Provision is made for the mobilization and control of gold if it is necessary for the protection of the currency or the public credit of the Commonwealth.
- (i) *Interest Rates.* The Reserve Bank may, with the approval of the Treasurer, make regulations for the control of rates of interest payable to or by the banks or other persons in the course of banking business carried on by them.
- (j) *Other.* Other provisions of the Act relate to the supply of statistics and other information by banks, the settlement of clearing balances between banks, investigations of the accounts of banks by the Commonwealth Auditor-General and restrictions on the use of the words "bank" or "savings bank" in relation to a business. Although a bank may be required to supply information relating to its financial stability and information needed for the determination of banking policy, it cannot be required to disclose details relating to the account of an individual customer.

The Reserve Bank Act 1959 (which repealed the Commonwealth Bank Act 1945-1953) and the Commonwealth Banks Act 1959 were assented to on 23rd April, 1959, and came into operation on 14th January, 1960. Under the Commonwealth Bank Act 1945-1953, the Commonwealth group of banking institutions comprising the Commonwealth Bank, Commonwealth Trading Bank and Commonwealth Savings Bank were under the control of the Commonwealth Bank Board. Under the legislation mentioned above, the central banking elements of the Commonwealth Bank, together with the Note Issue Department and Rural Credits Department, were reconstituted as the Reserve Bank of Australia and the Commonwealth Banking Corporation, an organization entirely separate from the Reserve Bank, was established with responsibilities for the Commonwealth Trading Bank, Commonwealth Savings Bank and a new institution, the Commonwealth Development Bank, formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. The Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank are corporate bodies each with its own statutory functions and responsibilities and its separate identity within the general framework of the Commonwealth Banking Corporation. Commensurate with these changes the legislation also provided for the constitution of separate staff services for the Reserve Bank and the Commonwealth Banking

Corporation and that the head offices of the Reserve Bank and the Corporation shall not, after a reasonable period, be in the same building. Under the Banking Act 1959, the Commonwealth Banking Corporation and its constituent banks are subject to the same central banking controls as apply to other banks.

(ii) *State Legislation.* State banking legislation relates to the incorporation of banks and the constitution and management of State banks. The Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales by Act of Council 1817, The Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the crisis of 1893. State banks, constituted under State Acts, transacting general banking business are The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia.

2. *Royal Commission on Monetary and Banking Systems.*—A Royal Commission was appointed by the Commonwealth Government in November, 1935, to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations appears in Official Year Book No. 31, page 1010.

3. *Presentation of Banking Statistics.*—Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into five groups and a separate series is presented for each. These groups are—

- (a) *The Reserve Bank of Australia.* Formerly the Commonwealth Bank, this bank is the Central Bank. It also provides special banking facilities through the Rural Credits Department. Statistics of the Central Banking Business (including the Note Issue Department) and of the Rural Credits Department are presented in separate series.
- (b) *The Commonwealth Development Bank of Australia.* This bank, which commenced operations on 14th January, 1960, under the control of the Commonwealth Banking Corporation, an organization entirely separate from the Reserve Bank, was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Its prime purpose is to assist in the development of worth-while enterprises in the field of both primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions.
- (c) *The Commonwealth Trading Bank of Australia.* This bank commenced operations on 3rd December, 1953. On that date, under the provisions of the Commonwealth Bank Act 1953, it took over the business of the General Banking Division of the Commonwealth Bank. On 14th January, 1960, under the provisions of the Commonwealth Banks Act 1959, it came under the control of the Commonwealth Banking Corporation.
- (d) *Private Trading Banks.* This group was formerly known as the Nine Trading Banks but the number of banks included has been reduced to seven by amalgamations. With the Commonwealth Trading Bank, these banks provide the major part of the general banking facilities in Australia. The banks included in this group are—the Australia and New Zealand Bank Ltd. (an amalgamation of the Bank of Australasia Ltd. and the Union Bank of Australia Ltd.), The Bank of Adelaide, the Bank of New South Wales, The Commercial Bank of Australia Ltd., The Commercial Banking Com-

pany of Sydney Ltd., The English, Scottish and Australian Bank Ltd. and The National Bank of Australasia Ltd. (which has absorbed The Queensland National Bank Ltd. and The Ballarat Banking Co. Ltd.).

- (e) *Other Banks.* This group consists of (i) three State Government Banks—The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, which, in their general banking business, specialize mainly in financing rural industries, (ii) one joint stock bank—The Brisbane Permanent Building and Banking Co. Ltd., which has specialized business in one district only, and (iii) branches of three overseas banks—the Bank of New Zealand, Comptoir National d'Escompte de Paris and the Bank of China, which transact limited business in Australia and are mainly concerned with financing trade, etc., between Australia and overseas countries.

In addition to the series mentioned above, a series for all cheque-paying banks is presented. This series covers the Commonwealth Trading Bank, the Private Trading Banks and the other cheque-paying banks included in the fifth group.

Unless otherwise stated, the statistics presented are averages of weekly returns. Averages of liabilities and assets are the averages of the liabilities and assets of the banks on the several weekly balance days during the period concerned. Averages of bank clearings and debits to customers' accounts are the averages of transactions for weeks ended on the balance days during the period.

4. **Banks Transacting Business in Australia.**—(i) *Number of Branches.* At 30th June, 1959, the 15 banks operating in Australia transacted all classes of banking business at 3,671 branches and 1,475 agencies. The Commonwealth Trading Bank and the Private Trading Banks have branches throughout the Commonwealth. The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, being State Government banks specializing mainly in financing rural industries, have branches only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd. transacts business in Brisbane only. The remaining three banks are branches of overseas banks.

CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(a) AT 30th JUNE, 1959.

Banks.	New South Wales.	Vic-toria.	Q'land.	South Aust.	West. Aust.	Tas-man-ia.	Nor. Terr.	Aust. Cap. Terr.	Aust-ralia.
Commonwealth Trading Bank of Australia ..	290	80	79	26	47	10	2	3	537
Private Trading Banks ..	964	877	477	283	236	68	9	12	2,926
Other Cheque-paying Banks ..	131	2	1	34	40	..	..	..	208
All Cheque-paying Banks—									
Metropolitan areas ..	565	480	128	127	132	17	..	..	1,449
Elsewhere ..	820	479	429	216	191	61	11	15	2,222
Total	1,385	959	557	343	323	78	11	15	3,671

(a) Includes Head Offices. Excludes 1,475 agencies.

(ii) *Capital Resources, Profits and Dividends.* The paid-up capital of cheque-paying banks (excluding the three overseas banks, the Bank of New Zealand, the Bank of China and the Comptoir National d'Escompte de Paris), together with their reserve funds, their profits and the amount of their last dividends, are shown in the following table. The information relates to the balance-sheet last preceding 31st October, 1958. All amounts are expressed in Australian currency.

CHEQUE-PAYING BANKS(a): CAPITAL RESOURCES, PROFITS AND DIVIDENDS, 1958.

(£'000.)

Bank.	Paid-up Capital. (b)	Re-serve Funds.	Balance of Profit and Loss Account. (c)	Total Share-holders' Funds. (d)	Reserve Liability of Share-holders. (e)	Net Profit for year. (f)	Net Dividends. (g)
<i>Commonwealth Trading Bank of Australia</i>	5,429	2,996	..	8,425	..	669	..
<i>Private Trading Banks—</i>							
Australia and New Zealand Bank Ltd.	12,801	8,785	1,836	23,422	10,667	1,035	883
The Bank of Adelaide	1,750	1,850	179	3,779	1,750	212	175
Bank of New South Wales	17,560	14,250	1,315	33,125	17,560	1,935	1,580
The Commercial Bank of Australia Ltd.	6,223	3,610	503	10,336	..	563	496
The Commercial Banking Co. of Sydney Ltd.	7,130	6,500	591	14,221	7,130	680	540
The English, Scottish and Australian Bank Ltd.	6,275	3,765	800	10,840	..	392	324
The National Bank of Australasia Ltd.	10,089	7,500	1,084	18,673	2,700	972	(h)1,110
The Queensland National Bank Ltd. (in vol. liq.) (i) .. .. .	..	..	130	130	..	..	..
The Ballarat Banking Co. Ltd. (in vol. liq.) (i) .. .. .	..	..	15	15	..	..	..
<i>Total Private Trading Banks</i>	61,828	46,260	6,453	114,541	39,807	5,789	5,108
<i>Other Cheque-paying Banks—</i>							
The Brisbane Permanent Building and Banking Co. Ltd.	1,000	275	74	1,349	..	82	80
The Rural Bank of New South Wales	15,517	11,367	..	26,884	..	115	..
State Bank of South Australia	5,770	1,379	..	7,149	..	90	..
The Rural and Industries Bank of Western Australia(j)	8,387	315	..	8,702	..	65	..
<i>Total Other Cheque-paying Banks</i>	30,674	13,336	74	44,084	..	352	80
Grand Total	97,931	62,592	6,527	167,050	39,807	6,810	5,188

(a) At various balance sheet dates during 1958. (b) For the Commonwealth Trading Bank, the amount shown in this column is the amount specified as capital in the Commonwealth Bank Act 1945-1953. For the State Bank of South Australia and The Rural and Industries Bank of Western Australia, the amounts shown in this column are capital funds provided by the respective State Governments. Capital of The Rural Bank of New South Wales consists of Inscribed Stock and Debentures issued by the Bank for capital purposes. (c) Includes dividends declared but not paid at date of balance-sheet. (d) For the Commonwealth Trading Bank and the State Banks, the amount shown in this column is total capital and reserves. (See footnote (b).) (e) Includes uncalled capital. (f) For the State Government Banks, the net profit is the profit after writing off bank premises and payment of interest on capital. For the other Banks, the net profit is the profit before writing off bank premises. (g) Dividends paid and payable out of profits earned during 1957-58. (h) Includes special Centenary bonus of £201,780. (i) These banks are in process of liquidation consequent upon the amalgamation of their business with the National Bank of Australasia Ltd. (j) For period eighteen months ended 31st March, 1959.

5. **The Reserve Bank of Australia.**—(i) *General.* The Reserve Bank of Australia, established under the Reserve Bank Act 1959, which came into operation on 14th January 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that Bank is given in earlier issues of the Official Year Book (see No. 37, pp. 570 to 573, and No. 45 pp. 735 to 737).

The general functions of the Reserve Bank are set out in Section 10 of the Reserve Bank Act 1959 which states:—

“It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of

the people of Australia and that the powers of the Bank under this Act, the Banking Act 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,

- (a) the stability of the currency of Australia;
- (b) the maintenance of full employment in Australia; and
- (c) the economic prosperity and welfare of the people of Australia".

In addition to its functions as a Central Bank, the Bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department and acts as banker to the Commonwealth and some of the States.

Prior to its reconstitution as the Reserve Bank, the Commonwealth Bank also provided general banking facilities through a General Banking Division up to the 3rd December, 1953, when that business was taken over by the Commonwealth Trading Bank and special banking facilities through the Mortgage Bank and Industrial Finance Departments. In addition, the Board of the Commonwealth Bank was responsible for the policy and administration of the Commonwealth Trading Bank and Commonwealth Savings Bank. On 14th January, 1960, on its reconstitution as the Reserve Bank, the Mortgage Bank and Industrial Finance Departments were amalgamated to form the Commonwealth Development Bank and that institution together with the Commonwealth Trading Bank and the Commonwealth Savings Bank were placed under the control of the Commonwealth Banking Corporation, an organization established under the Commonwealth Banks Act 1959 and entirely separate from the Reserve Bank.

(ii) *Management.* Under the Commonwealth Bank Act 1911, the Commonwealth Bank was managed by a Governor. From 1924 to August, 1945, it was controlled by a Board of Directors. Under the Commonwealth Bank Act 1945, control was vested in a Governor, assisted by an Advisory Council. From August, 1951, under the Commonwealth Bank Act 1951, it was controlled by a Board of Directors.

Under the provisions of the Reserve Bank Act 1959, the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The bank is managed by the Governor who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

(iii) *Central Banking Business.* Under the powers it possessed under the Commonwealth Bank Act 1911–1943 and under its war-time powers under the National Security Regulations, the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III. of the Commonwealth Bank Act 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the Reserve Bank Act 1959, the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14th January, 1960, and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (a) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (b) the remainder shall be paid to the Commonwealth.

(iv) *Note Issue Department.* The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the Reserve Bank Act 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the Reserve Bank Act 1959, the profits of the Note Issue Department are paid to the Commonwealth.

(v) *Rural Credits Department.* The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the Reserve Bank Act 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed

under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the Reserve Bank Act 1959, the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14th January, 1960, and £2,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (a) one half shall be placed to the credit of the Rural Credits Department Reserve Fund and (b) one half shall be placed to the credit of the Rural Credits Development Fund.

The statistics presented in the tables which follow relate to the Commonwealth Bank before its reconstitution as the Reserve Bank and, unless specified, cover all Departments of the Bank including the Mortgage Bank and Industrial Finance Departments which on 14th January, 1960, were amalgamated to form the Commonwealth Development Bank.

(vi) *Liabilities and Assets—All Departments.* Liabilities and assets of each Department of the Commonwealth Bank at 30th June, 1959, are shown in the following table. The Commonwealth Trading Bank and the Commonwealth Savings Bank, which are operated as separate institutions, are not included (*see* para. 8 (ii), p. 768, and para. 10 (ii), p. 783).

**COMMONWEALTH BANK OF AUSTRALIA: LIABILITIES AND ASSETS,
30th JUNE, 1959.**

(£'000.)

Item.	Central Banking Business.	Note Issue Depart- ment.	Rural Credits Depart- ment.	Mortgage Bank Depart- ment.	Industrial Finance Depart- ment.	Total.(a)
LIABILITIES.						
Capital	4,000	.. ..	2,714	5,428	5,429	17,571
Reserve Funds	20,872	.. ..	1,330	846	3,834	26,882
Special Reserve—Premium on gold sold .. .. .	..	4,755	..	..	..	4,755
Development Fund .. .. .	..	..	137	..	..	137
Notes on issue .. .. .	..	391,457	..	..	..	391,457
Deposits, bills payable and other liabilities—						
Special Accounts of Trading Banks	250,159	..	..	..	..	250,159
Other deposits of Trading Banks	29,997	..	..	..	..	29,997
Other (including provision for con- tingencies)	266,623	9,717	68,396	1,011	22,309	304,599
<i>Total Liabilities</i>	<i>571,651</i>	<i>405,929</i>	<i>72,577</i>	<i>7,285</i>	<i>31,572</i>	<i>1,025,557</i>

ASSETS.

Gold and balances held abroad (in- cluding money at short call) ..	295,419	125,416	..	..	..	420,835
Australian notes and coin and cash balances	2,339	..	..	73	281	2,339
Cheques and bills of other banks ..	5,668	..	..	..	..	5,668
Commonwealth Government securities (including Commonwealth Treasury Bills)	154,516	280,456	..	1,042	3,496	439,510
Securities of other Governments, and of local and semi-governmental authorities	36,825	..	..	..	..	36,825
Bills receivable and remittances in transit	9,005	..	..	..	..	9,005
Bank premises at cost less amounts written off	1,274	..	..	..	..	1,274
Loans, advances, bills discounted, and other assets (after deducting debts considered bad or doubtful) ..	66,605	57	72,577	6,170	27,795	110,101
<i>Total Assets</i>	<i>571,651</i>	<i>405,929</i>	<i>72,577</i>	<i>7,285</i>	<i>31,572</i>	<i>1,025,557</i>

(a) Inter-departmental accounts totalling £63,457,000 have been offset in the combined figures.

(vii) *Profits.* Net profits of the various Departments of the Commonwealth Bank for the years ended 30th June, 1939 and 1955 to 1959, were as follows:—

COMMONWEALTH BANK OF AUSTRALIA: NET PROFITS.
(£'000.)

Year ended 30th June—	General Bank Department.	Central Banking Business. (a)	Note Issue Department.	Rural Credits Department.	Mortgage Bank Department. (b)	Industrial Finance Department. (c)	Total.
1939	356	..	767	32	..	..	1,155
1955	4,518	6,017	192	65	398	11,190
1956	6,561	8,366	220	75	416	15,638
1957	8,741	10,053	195	95	386	19,470
1958	10,103	12,593	184	110	405	23,395
1959	4,200	10,935	227	123	512	15,997

(a) Created 21st August, 1945.
business 27th September, 1943.

Previously part of General Bank Department.
(c) Commenced business 2nd January, 1946.

(b) Commenced

The distribution of these profits for the years ended 30th June, 1955 to 1959, is given in the following table:—

COMMONWEALTH BANK OF AUSTRALIA: DISTRIBUTION OF PROFITS.
(£'000.)

To—	1955.	1956.	1957.	1958.	1959.
National Debt Sinking Fund	2,259	3,280	4,371	5,052	2,100
Commonwealth Consolidated Revenue Fund	5,517	7,866	10,054	12,593	10,935
Commonwealth Trading Bank Capital Account	286	286	..	..	..
Commonwealth Bank Reserve Fund	1,759	2,780	4,370	5,051	2,100
Rural Credits Department—					
Capital Account	142	143	..	..	..
Reserve Fund	96	110	97	92	114
Development Fund	96	110	97	92	113
Mortgage Bank Department—					
Capital Account	286	286	..	..	..
Reserve Fund	65	75	95	110	123
Industrial Finance Department—					
Capital Account	286	286	..	..	..
Reserve Fund	398	416	386	405	512
Total	11,190	15,638	19,470	23,395	15,997

(viii) *Central Banking Business—Average Liabilities and Assets.* The average liabilities and assets of the Central Banking Business and Note Issue Department of the Commonwealth Bank for the years ended June, 1955 to 1959, are shown in the two tables which follow.

COMMONWEALTH BANK OF AUSTRALIA: CENTRAL BANKING BUSINESS
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE LIABILITIES.
(£'000.)

Year ended June—	Capital and Reserve Funds.	Notes on Issue.	Special Accounts of Trading Banks.	Other Deposits of Trading Banks.	Other Liabilities.	Total Liabilities.
1955	13,279	357,023	306,286	36,795	243,468	956,851
1956	14,945	374,096	272,841	35,630	208,717	906,229
1957	17,559	383,214	289,444	31,345	205,917	927,479
1958	21,618	389,544	328,337	25,602	218,393	983,494
1959	26,437	396,019	259,865	24,189	232,866	939,376

**COMMONWEALTH BANK OF AUSTRALIA: CENTRAL BANKING BUSINESS
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE ASSETS.
(£'000.)**

Year ended June—	Gold and Balances held Abroad.	Aus- tralian Coin.	Cheques and Bills of other Banks.	Government and other Securities (including Common- wealth Treasury Bills).	Bills Receiv- able and Remit- tances in Transit.	Other Assets.	Total Assets.
1955	415,896	2,380	7,009	459,839	3,488	68,239	956,851
1956	298,885	2,364	6,505	515,716	3,746	79,013	906,229
1957	349,663	1,892	5,360	508,841	3,805	57,918	927,479
1958	461,721	2,026	4,177	478,603	4,488	32,479	983,494
1959	411,509	2,182	4,094	469,064	4,707	47,820	939,376

6. **The Commonwealth Banking Corporation.**—(i) *General.* The Commonwealth Banking Corporation was established under the Commonwealth Banks Act 1959 and came into being on the 14th January, 1960. The Corporation is entirely separate from the Reserve Bank and is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. The general functions of the corporation are set out in Section 9 of the Commonwealth Banks Act 1959 which states:

“It is the duty of the Board, within the limits of its powers, to ensure that the policy of the Trading Bank, of the Savings Bank and of the Development Bank are directed to the greatest advantage of the people of Australia and have due regard to the stability and balanced development of the Australian economy.”

Under the Banking Act 1959, the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

(ii) *Management.* The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board, the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

7. **Commonwealth Development Bank of Australia.**—The Commonwealth Development Bank of Australia was established by the Commonwealth Banks Act 1959 and commenced operations on 14th January, 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act, the Bank is authorized to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14th January, 1960, £5,000,000 provided by the Reserve Bank, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

8. **The Commonwealth Trading Bank of Australia.**—(i) *General.* The Commonwealth Trading Bank of Australia was established by the Commonwealth Bank Act 1953 and on 3rd December, 1953, took over the business of the General Banking Division of the Commonwealth Bank. It was managed by a General Manager under the Governor of the Commonwealth Bank and its policy was determined by the Board of that Bank. Under the provisions of the Commonwealth Banks Act 1959 which came into operation on 14th January, 1960, the Commonwealth Trading Bank was maintained in the same form but was placed under the control of the Commonwealth Banking Corporation. The Commonwealth Trading Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation. The capital of the Commonwealth Trading Bank is the capital of the Commonwealth Trading Bank immediately prior to 14th January, 1960, £2,000,000 provided by the Reserve Bank, and such other sums as are transferred from the Commonwealth Trading Bank Reserve Fund. Under the Act, the Bank is liable for income taxes. The net profits of the Bank, after provision for taxation, are divided as follows:—
(a) one-half shall be placed to the credit of the Commonwealth Trading Bank Reserve Fund and (b) one-half shall be paid to the Commonwealth.

(ii) *Liabilities and Assets.* The liabilities and assets of the Commonwealth Trading Bank at 30th June, 1958 and 1959, are shown in the following table:—

COMMONWEALTH TRADING BANK OF AUSTRALIA: LIABILITIES AND ASSETS, 30th JUNE, 1958 AND 1959.

(£'000.)

Liabilities.	1958.	1959.	Assets.	1958.	1959.
Capital	5,429	5,429	Coin, bullion, notes and cash at bankers ..	16,181	18,647
Reserve Fund ..	2,996	3,296	Money at short call in London and elsewhere	1,750	3,425
Deposits, bills payable and other liabilities (including provision for contingencies) ..	271,889	296,946	Special Account with Commonwealth Bank	37,650	36,150
Balances due to other banks	876	1,125	Cheques and bills of other banks and balances with and due from other banks	3,726	4,064
			Australian Public Securities—		
			Commonwealth and States—		
			Treasury Bills ..	10,000	3,090
			Other Securities ..	46,748	60,892
			Local and Semi-Governmental Authorities ..	1,298	1,298
			Bills receivable and remittances in transit	38,000	42,009
			Bank premises (at cost less amounts written off)	4,398	4,514
			Loans, advances and bills discounted (after deducting provision for debts considered bad or doubtful) ..	117,985	129,201
			Other assets	3,454	3,596
Total	281,190	306,796	Total	281,190	306,796

(iii) *Average Liabilities and Assets within Australia.* The average liabilities and assets of the Commonwealth Trading Bank within Australia for the years ended 30th June, 1955 to 1959, are shown in the following tables.

COMMONWEALTH TRADING BANK OF AUSTRALIA—AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Deposits.			Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
	Not Bearing Interest.	Bearing Interest.	Total.			
1955	130,909	43,549	174,458	309	16,148	190,915
1956	135,617	46,243	181,860	314	17,496	199,670
1957	140,125	44,423	184,548	389	18,160	203,097
1958	150,220	54,837	205,057	422	19,523	225,002
1959	159,071	67,705	226,776	417	21,623	248,816

(a) Includes Territories of Papua and New Guinea.

COMMONWEALTH TRADING BANK OF AUSTRALIA—AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with other Banks. (b)	Commonwealth and State Government Securities.		Other Securities.	Loans, Advances, and Bills Discounted.	All other Assets. (c)	Total Assets.
				Treasury Bills.	Other.				
1955	10,456	36,061	870	12,260	38,165	1,606	89,138	5,675	194,231
1956	10,213	33,155	1,238	6,333	38,599	1,824	103,894	6,815	202,071
1957	9,988	34,603	1,469	4,059	35,714	2,654	106,480	7,305	202,272
1958	10,829	40,193	1,596	5,500	46,476	2,511	107,815	8,396	223,316
1959	11,307	36,450	1,590	4,137	56,677	2,416	122,499	10,549	245,625

(a) Includes Territories of Papua and New Guinea. (b) Includes notes, cheques and bills of other banks. (c) Includes Local and Semi-Governmental Securities.

(iv) *Profits.* The net profits (after writing off bank premises, £148,960 in 1958 and £165,790 in 1959) of the Commonwealth Trading Bank for the years ended 30th June, 1958 and 1959, were £520,262 and £600,668 respectively. These net profits were distributed one half to the National Debt Sinking Fund and one half to the Commonwealth Trading Bank Reserve Fund.

9. Private Trading Banks.—(i) *Average Liabilities and Assets in Australia.* The average liabilities and assets within Australia of the Private Trading Banks (see p. 761 for list of banks) for the years ended June, 1939 and 1955 to 1959, are shown in the following tables:—

PRIVATE TRADING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Inter-minable Deposits or Deposit Stock.	Deposits.			Notes in Circulation.	Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not Bearing Interest.	Bearing Interest.	Total.				
1939	2,644	118,868	198,793	317,661	167	921	(c) 3,005	324,398
1955	9	1,047,677	262,986	1,310,663	158	3,282	16,432	1,330,544
1956	6	1,032,332	263,107	1,295,439	158	6,528	16,913	1,319,044
1957	6	1,028,509	299,499	1,328,008	158	7,343	18,685	1,354,200
1958	6	1,045,881	345,415	1,391,296	157	5,561	18,505	1,415,525
1959	6	1,007,798	368,514	1,376,312	157	4,121	20,495	1,401,091

(a) Includes Territories of Papua and New Guinea. (b) Includes other Liabilities. (c) Excludes other Liabilities.

PRIVATE TRADING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with Other Banks. (b)	Commonwealth and State Government Securities.		Other Securities.	Loans, Advances and Bills Discounted.	All other Assets. (c)	Total Assets.
				Treasury Bills.	Other.				
1939	33,597	..	3,938	21,533	d 20,477	(e)	f 288,109	g 9,421	377,075
1955	66,908	269,117	18,436	51,602	120,239	3,425	776,762	50,613	1,357,102
1956	66,883	238,803	19,672	50,015	113,121	5,839	804,392	56,898	1,355,623
1957	63,661	254,052	20,239	51,162	151,298	7,192	762,638	59,117	1,369,359
1958	59,805	287,399	18,254	39,027	176,152	12,415	774,302	63,663	1,431,017
1959	58,263	222,809	18,794	38,309	193,546	15,702	807,028	72,870	1,427,321

(a) Includes Territories of Papua and New Guinea. (b) Includes notes, cheques and bills of other banks. (c) Includes Local and Semi-Governmental securities. (d) Includes municipal securities. (e) Included with loans, advances and bills discounted. (f) See footnotes (e) and (g). (g) Landed and house property only. Other assets included with loans, advances and bills discounted.

(ii) *Ratios of Assets and Liabilities to Total Deposits.* The following table shows, for the Private Trading Banks, the ratios of certain assets and liabilities to total deposits for the years ended June, 1939 and 1955 to 1959. The ratios are based on the average liabilities and assets for the years shown.

PRIVATE TRADING BANKS: RATIOS OF AVERAGE ASSETS AND LIABILITIES TO AVERAGE TOTAL DEPOSITS.
(Per cent.)

Year ended June—	Cash and Cash Balances.	Commonwealth and State Government Securities.		Special Account with Commonwealth Bank.	Advances.	Deposits.	
		Treasury Bills.	Other.			Not Bearing Interest.	Bearing Interest.
1939	10.6	6.8	(a) 6.5	..	90.7	37.4	62.6
1955	5.1	3.9	9.2	20.5	59.3	79.9	20.1
1956	5.2	3.9	8.7	18.4	62.1	79.7	20.3
1957	4.8	3.9	11.4	19.1	57.4	77.5	22.5
1958	4.3	2.8	12.7	20.7	55.7	75.2	24.8
1959	4.2	2.8	14.1	16.2	58.6	73.2	26.8

(a) Includes municipal securities.

(iii) *Proportion of Non-Interest Bearing to Total Deposits.* The following table shows, for each State, the proportion of non-interest bearing deposits to total deposits with the Private Trading Banks for each of the years ended June, 1939 and 1955 to 1959. The ratios are based on the average deposits for the years shown.

PRIVATE TRADING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.
(Per cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia, (a)
1939	43.5	30.3	45.4	26.1	45.7	36.5	61.1	23.2	37.4
1955	81.9	78.1	82.6	71.6	84.1	80.1	88.7	89.6	79.9
1956	81.6	78.6	81.3	71.2	82.3	79.8	86.5	88.1	79.7
1957	79.1	76.5	80.1	69.4	77.6	79.7	82.6	79.8	77.5
1958	76.5	74.3	78.5	67.1	75.8	77.4	79.8	78.7	75.2
1959	74.6	72.1	77.0	65.2	73.2	75.1	79.4	80.1	73.2

(a) Includes Territories of Papua and New Guinea for 1955 and following years.

(iv) *Ratio of Advances to Total Deposits.* The ratio of advances to total deposits for each State for the years ended June, 1939 and 1955 to 1959, is shown in the following table. The ratios are based on the averages of deposits and advances for the years shown.

PRIVATE TRADING BANKS: RATIO OF ADVANCES TO TOTAL DEPOSITS.
(Per cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust. ralia. (a)
1939	104.5	71.6	99.2	77.6	155.5	57.0	24.5	37.7	90.7
1955	66.1	51.8	68.5	37.2	71.6	61.9	55.8	49.5	59.3
1956	71.6	53.4	67.8	39.0	78.4	60.1	59.5	43.9	62.1
1957	67.1	48.9	63.0	36.1	68.7	54.7	47.4	40.3	57.4
1958	63.8	47.7	61.0	36.7	71.2	53.1	43.1	40.5	55.7
1959	65.7	49.6	67.1	41.2	75.6	56.5	47.2	36.1	58.6

(a) Includes Territories of Papua and New Guinea for 1955 and following years.

10. Other Cheque-paying Banks.—*Average Liabilities and Assets within Australia.* The average liabilities and assets within Australia of "Other Cheque-paying Banks" (see p. 762 for list of these banks) for the years ended June, 1955 to 1959, are shown in the following tables:—

OTHER CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.
(£'000.)

Year ended June—	Inter-minable Deposits or Deposit Stock.(a)	Deposits.			Notes in Circulation.	Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not Bearing Interest.	Bearing Interest.	Total.				
1955	20,520	41,415	16,069	57,484	..	554	461	79,019
1956	20,569	39,726	16,359	56,085	..	1,536	484	78,674
1957	20,472	41,317	16,946	58,263	..	1,372	586	80,693
1958	20,724	42,013	20,311	62,324	..	1,384	790	85,222
1959	21,854	40,189	24,694	64,883	..	1,055	1,108	88,900

(a) Inscribed stock and debentures, Rural Bank of New South Wales and State Bank of South Australia.

OTHER CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA
(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with other Banks. (a)	Commonwealth and State Government Securities.		Other Securities.	Loans, Advances and Bills Discounted.	All other Assets. (b)(c)	Total Assets.
				Treasury Bills.	Other.				
1955	4,586	1,108	2,198	5,641	13,295	701	72,189	5,600	105,318
1956	3,992	883	1,588	4,119	13,816	245	75,825	5,904	106,372
1957	3,857	788	2,267	3,906	15,068	288	77,697	6,136	110,007
1958	3,804	745	2,512	4,145	14,532	748	81,149	6,727	114,362
1959	3,615	606	2,920	824	14,400	3,588	85,819	8,640	120,412

(a) Includes notes, cheques and bills of other banks. (b) Includes Local and Semi-Governmental Securities. (c) Includes The Rural and Industries Bank of Western Australia and State Bank of South Australia accounts with State Treasuries.

11. All Cheque-paying Banks.—*Average Liabilities and Assets within Australia.* Particulars of the average liabilities and assets within Australia of all cheque-paying banks in Australia (see p. 761 for list of banks) for the years ended 30th June, 1955 to 1959, are shown in the following tables.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Inter-minable Deposits or Deposit Stock.	Deposits.			Notes in Circulation.	Balances due to other Banks.	Bills payable and all other liabilities to the Public.	Total Liabilities.
		Not Bearing Interest.	Bearing Interest.	Total.				
1955	20,529	1,220,001	322,604	1,542,605	158	4,145	33,041	1,600,478
1956	20,575	1,207,675	325,709	1,533,384	158	8,378	34,893	1,597,388
1957	20,478	1,209,951	360,868	1,570,819	158	9,104	37,431	1,637,990
1958	20,730	1,238,114	420,563	1,658,677	157	7,367	38,818	1,725,749
1959	21,860	1,207,058	460,913	1,667,971	157	5,593	43,226	1,738,807

(a) Includes Territories of Papua and New Guinea.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with other Banks.	Commonwealth and State Government Securities.		Other Securities.	Loans, Advances and Bills Discounted.	All Other Assets. (b)	Total Assets.
				Treasury Bills.	Other.				
1955	81,950	306,286	21,504	69,503	171,699	5,732	938,089	61,888	1,656,651
1956	81,088	272,841	22,498	60,467	165,536	7,908	984,111	69,617	1,664,066
1957	77,506	289,443	23,975	59,127	202,080	10,143	946,815	72,549	1,681,638
1958	74,438	328,337	22,362	48,672	237,160	15,674	963,266	78,786	1,768,695
1959	73,185	259,865	23,304	43,270	264,623	21,706	1,015,346	92,059	1,793,358

(a) Includes Territories of Papua and New Guinea. securities.

(b) Includes Local and Semi-Governmental

12. **Commonwealth and Private Trading Banks (Major Trading Banks).**—(i) *Selected Average Assets and Liabilities within Australia.* In the following tables, particulars of selected average assets and liabilities of the Commonwealth and Private Trading Banks are shown for each of the years ended June, 1955 to 1959.

COMMONWEALTH AND PRIVATE TRADING BANKS: SELECTED AVERAGE ASSETS AND LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Commonwealth and State Government Securities.		Special Account with Commonwealth Bank.	Advances.	Total Deposits.	
		Treasury Bills.	Other.			Not Bearing Interest.	Bearing Interest.
1955	77,364	63,862	158,404	305,178	865,900	1,178,586	306,535
1956	77,096	56,348	151,720	271,958	908,286	1,167,949	309,350
1957	73,649	55,221	187,012	288,655	869,118	1,168,634	343,922
1958	70,634	44,527	222,628	327,592	882,117	1,196,101	400,252
1959	69,570	42,446	250,223	259,259	929,527	1,166,869	436,219

(a) Includes Territories of Papua and New Guinea.

(ii) *Ratios of Selected Assets within Australia to Total Deposits.* In the table below, ratios of selected assets to deposits are given for each of the years ended June, 1955 to 1959.

COMMONWEALTH AND PRIVATE TRADING BANKS: RATIOS OF SELECTED ASSETS WITHIN AUSTRALIA^(a) TO TOTAL DEPOSITS.^(b)
(Per cent.)

Year ended June—	Cash and Cash Balances. (c)	Commonwealth and State Government Securities.		Special Account with Commonwealth Bank.	Advances.	Total Deposits.	
		Treasury Bills.	Other.			Not Bearing Interest.	Bearing Interest.
1955	5.2	4.3	10.7	20.6	58.3	79.4	20.6
1956	5.2	3.8	10.3	18.4	61.5	79.1	20.9
1957	4.9	3.6	12.4	19.1	57.5	77.3	22.7
1958	4.4	2.8	14.0	20.5	55.3	74.9	25.1
1959	4.3	2.7	15.6	16.2	58.0	72.8	27.2

(a) Includes Territories of Papua and New Guinea.
for the years shown.

(b) Based on averages of assets and liabilities with Commonwealth Bank on current account.

13. Classification of Advances within Australia—Commonwealth Trading Bank of Australia and Private Trading Banks (Major Trading Banks).—(i) *States, June, 1959.* A classification of bank advances of the Commonwealth and Private Trading Banks outstanding at the end of June, 1959, is shown in the following table.

Resident borrowers cover institutions (including branches of overseas institutions) engaged in business in Australia and persons permanently residing in Australia. Non-resident borrowers cover all other persons and institutions incorporated abroad, which, though represented, do not carry on business in Australia. Advances to resident borrowers have been classified as business advances, advances to public authorities, personal advances and advances to non-profit organizations. Business advances have been further classified to the main industry of the borrower and include advances to partnerships, companies and other institutions engaged in business in Australia, advances to persons actively engaged in business on their own behalf if the advance is mainly for business purposes, advances to mutual, co-operative and benefit societies which distribute their profits or surpluses (if any) to members by way of dividends, rebates on charges for goods and services or increased benefits. Advances to public authorities cover advances to local and semi-governmental authorities including separately constituted government business undertakings but not the Commonwealth or State Governments. Personal advances cover advances to persons for purposes other than carrying on a business. Advances to non-profit organizations cover advances to organizations which are not carried on for the purpose of making a profit or gain to individual members, any income of the organization being used for the purposes of the organization or for the benefit of the community.

Commencing with the June, 1957, survey, the classification used in previous surveys was revised and because of changes in definition and regrouping of some classes, a complete review of the classification of all accounts was necessary. The main changes made in the classification were (a) the provision of separate classes for advances to non-residents and non-profit organizations and (b) changes in the definition of and grouping of several industrial classes. The main changes under (b) were:—

Manufacturing.—This class now includes motor repairs previously included in the class, Transport, Storage and Communication.

Finance.—This class was previously Finance and Property. The previous sub-class (i), Builders and Contractors, has been transferred to a new class 6, Building and Construction. The sub-class (ii), Building Investment Companies and Housing Societies, has been restricted to Building and Housing Societies (Building Investment Companies are included in class 7, Other Businesses) and the sub-class (iii), Other (Banking and Insurance, etc.), has been restricted to financial institutions only. Business services (e.g., Stock Brokers, Estate Agencies, etc.) previously included in this sub-class have been transferred to class 7, Other Businesses. Holding companies also previously included are now classified to the main industry of their subsidiary companies.

Commerce.—The sub-class, Retail Trade, now includes motor garages and service stations previously included in the class, Transport, Storage and Communication.

These revisions should be noted when comparing the figures for June, 1957, and subsequent periods with those for earlier periods.

COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA (a)—STATES, END OF JUNE, 1959.

(£'000.)

Classification.	N.S.W. (b)	Vic.	Q'land. (a)	S. Aust. (c)	W. Aust.	Tas.	Aust- ralia. (a)	Pro- portion of Total (Per cent.)
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Resident Borrowers.

A. BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.

1. Agriculture, Dairying and Grazing ..	92,748	43,804	55,073	14,604	18,708	4,661	229,598	24.6
2. Manufacturing ..	76,814	60,749	23,467	8,678	6,590	4,314	180,612	19.3
3. Transport, Storage and Communication ..	4,487	5,064	2,265	2,084	872	397	15,169	1.6
4. Finance—								
(i) Building and Housing Societies ..	11,481	11,582	652	293				
(ii) Other ..	9,733	9,709	2,804	1,308	170	322	24,500	2.6
Total Class 4 ..	21,214	21,291	3,456	1,601	1,211	375	24,970	2.7
5. Commerce—								
(i) Retail Trade ..	35,565	26,183	13,457	6,827	7,031	3,551	92,614	10.0
(ii) Wholesale Trade(d)	47,028	25,183	5,052	5,499	4,592	2,513	89,867	9.6
Total Class 5 ..	82,593	51,366	18,509	12,326	11,623	6,064	182,481	19.6
6. Building and Construction ..	12,287	7,886	3,449	1,421	1,534	857	27,434	2.9
7. Other Businesses ..	24,503	17,062	12,601	3,591	4,986	1,448	64,191	6.9
8. Unclassified ..	1,385	2,528	417	180	300	385	5,195	0.6
Companies (e) ..	169,501	121,397	35,809	21,976	15,451	9,302	373,436	40.0
Other (e) ..	146,530	88,353	83,428	22,509	30,373	9,521	380,714	40.8
Total ..	316,031	209,750	119,237	44,485	45,824	18,823	754,150	80.8

B. ADVANCES TO PUBLIC AUTHORITIES.

Public Authorities (including Local Government and Semi-Governmental Bodies) ..	5,443	4,045	1,186	206	336	95	11,311	1.2
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C. PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.

1. Building or purchasing own home (Individuals) ..	42,390	22,467	12,670	4,535	7,757	1,652	91,471	9.8
2. All other (including Personal Loans) ..	24,373	18,564	7,692	3,232	4,236	1,614	59,711	6.4
Total ..	66,763	41,031	20,362	7,767	11,993	3,266	151,182	16.2

D. ADVANCES TO NON-PROFIT ORGANIZATIONS.

Total ..	6,922	3,746	3,123	655	1,547	394	16,387	1.8
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TOTAL ADVANCES TO RESIDENT BORROWERS.

Total ..	395,159	258,572	143,908	53,113	59,700	22,578	933,030	100.0
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Non-Resident Borrowers.

ADVANCES TO NON-RESIDENT BORROWERS.

Total ..	77	87	46	..	16	1	227	..
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TOTAL ADVANCES TO RESIDENT AND NON-RESIDENT BORROWERS.

Grand Total ..	395,236	258,659	143,954	53,113	59,716	22,579	933,257	100.0
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(a) Includes Territories of Papua and New Guinea. (b) Includes Australian Capital Territory.
(c) Includes Northern Territory. (d) Includes temporary advances to woolbuyers. (e) The combined advances for these two groups are distributed over the above industries

(ii) *Australia, June, 1956 to June, 1959.* The following table provides a classification of advances within Australia (including Territories of Papua and New Guinea) as at the end of June, 1956 to 1959.

**COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(a)
AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL.**

Classification.	At End of June—							
	1956.		1957.		1958.		1959.	
	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.

Resident Borrowers.

A. BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.

1. Agriculture, Dairying and Grazing ..	213,013	23.7	200,027	22.7	230,976	24.0	229,598	24.6
2. Manufacturing ..	185,117	20.6	182,896	20.7	184,580	19.2	180,612	19.3
3. Transport, Storage and Communication ..	17,267	1.9	12,399	1.4	14,646	1.5	15,169	1.6
4. Finance—								
(i) Building and Housing Societies ..	26,208	2.9	25,360	2.9	26,502	2.8	24,500	2.6
(ii) Other ..	46,217	5.2	27,172	3.1	40,582	4.2	24,970	2.7
Total Class 4 ..	72,425	8.1	52,532	6.0	67,084	7.0	49,470	5.3
5. Commerce—								
(i) Retail Trade ..	86,310	9.6	87,522	9.9	99,600	10.3	92,614	10.0
(ii) Wholesale Trade(b) ..	72,062	8.1	99,939	11.3	102,670	10.7	89,867	9.6
Total Class 5 ..	158,372	17.7	187,461	21.2	202,270	21.0	182,481	19.6
6. Building and Construction ..	20,147	2.2	20,665	2.3	25,109	2.6	27,434	2.9
7. Other Businesses ..	70,307	7.9	55,261	6.3	60,229	6.3	64,191	6.9
8. Unclassified ..	(c)	(c)	4,413	0.5	4,602	0.5	5,195	0.6
Companies (d) ..	(e)	(e)	362,363	41.1	411,404	42.8	373,436	40.0
Other (d) ..	(e)	(e)	353,291	40.0	378,092	39.3	380,714	40.8
Total ..	736,648	82.1	715,654	81.1	789,496	82.1	754,150	80.8

B. ADVANCES TO PUBLIC AUTHORITIES.

Public Authorities (incl. Local Government and Semi-Governmental Bodies) ..	18,096	2.0	16,578	1.9	12,361	1.3	11,311	1.2
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C. PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.

1. Building or purchasing own home (Individuals) ..	94,571	10.6	86,822	9.9	89,155	9.2	91,471	9.8
2. All other (including Personal Loans) ..	47,910	5.3	49,704	5.6	55,622	5.8	59,711	6.4
Total ..	142,481	15.9	136,526	15.5	144,777	15.0	151,182	16.2

D. ADVANCES TO NON-PROFIT ORGANIZATIONS.

Total ..	(e)	(e)	13,424	1.5	15,407	1.6	16,387	1.8
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TOTAL ADVANCES TO RESIDENT BORROWERS.

Total ..	(e)	(e)	882,182	100.0	962,041	100.0	933,030	100.0
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Non-Resident Borrowers.

ADVANCES TO NON-RESIDENT BORROWERS.

Total ..	(e)	(e)	176	..	195	..	227	..
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TOTAL ADVANCES TO RESIDENT AND NON-RESIDENT BORROWERS.

Grand Total ..	897,225	100.0	882,358	100.0	962,236	100.0	933,257	100.0
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(a) Includes Territories of Papua and New Guinea. (b) Includes temporary advances to wool-buyers. (c) Included with Other Businesses. (d) See footnote (e) to previous table. (e) Not available separately.

NOTE:—The figures for 1956 for some classes are not strictly comparable with those for later periods. See para. 13 (i), page 773.

14. Classification of Bank Deposits within Australia—Commonwealth Trading Bank of Australia and Private Trading (Major Trading Banks).—A classification of bank deposits (excluding deposits of Commonwealth and State Governments) held by the Commonwealth and Private Trading Banks at the end of June, 1957 to 1959, is given in the following table. The classification is similar to that used for advances (for details *see* p. 773).

COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS: CLASSIFICATION OF DEPOSITS^(a) WITHIN AUSTRALIA^(b): AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL.

Classification.	At end of June—					
	1957.		1958.		1959.	
	Amount £ million.	Per cent.	Amount £ million.	Per cent.	Amount £ million.	Per cent.
<i>Resident Depositors—</i>						
Business Deposits classified according to main Industry of Depositor—						
Agriculture, Grazing,						
Dairying	375.2	24.8	335.0	22.2	335.2	21.2
Manufacturing ..	120.8	8.0	130.5	8.6	142.4	9.0
Transport, Storage and						
Communication ..	30.8	2.0	31.4	2.1	31.7	2.0
Finance	132.0	8.7	125.5	8.3	134.3	8.5
Commerce	159.1	10.5	146.6	9.7	161.5	10.2
Building and Construction	41.6	2.7	40.7	2.7	42.5	2.7
Other Businesses	159.0	10.5	163.9	10.8	177.1	11.2
Unclassified	12.4	0.8	10.0	0.7	11.0	0.7
<i>Total Business Deposits—</i>						
Companies(c)	328.8	21.7	320.9	21.2	367.3	23.2
Other(c)	702.1	46.3	662.7	43.9	668.4	42.3
<i>Total</i>	<i>1,030.9</i>	<i>68.0</i>	<i>983.6</i>	<i>65.1</i>	<i>1,035.7</i>	<i>65.5</i>
<i>Deposits of Public Authorities</i>	<i>53.1</i>	<i>3.5</i>	<i>65.3</i>	<i>4.3</i>	<i>73.4</i>	<i>4.6</i>
<i>Personal Deposits</i>	<i>385.6</i>	<i>25.4</i>	<i>412.9</i>	<i>27.3</i>	<i>419.6</i>	<i>26.5</i>
<i>Deposits of Non-profit Organizations</i>	<i>34.9</i>	<i>2.3</i>	<i>39.4</i>	<i>2.6</i>	<i>43.3</i>	<i>2.7</i>
<i>Total Resident Depositors</i>	<i>1,504.5</i>	<i>99.2</i>	<i>1,501.2</i>	<i>99.3</i>	<i>1,572.0</i>	<i>99.3</i>
<i>Non-resident Depositors</i>	<i>11.3</i>	<i>0.8</i>	<i>9.9</i>	<i>0.7</i>	<i>10.0</i>	<i>0.7</i>
<i>Total—All Depositors</i>	<i>1,515.8</i>	<i>100.0</i>	<i>1,511.1</i>	<i>100.0</i>	<i>1,582.0</i>	<i>100.0</i>

(a) Excludes deposits of Commonwealth and State Governments. (b) Includes Territories of Papua and New Guinea. (c) The combined deposits of these two groups are distributed over the above industries.

15. Interest on Deposits: Rates—Cheque-paying Banks.—Particulars of interest rates for fixed deposits since 1952 are shown hereunder.

BANK FIXED DEPOSIT RATES: AUSTRALIA.

(Per cent. per annum.)

Date from which Operative.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Twenty-four Months.
29th July, 1952	1	1½	1½	(a) 1½
1st January, 1955	1½	1½	1½	2
15th March, 1956	2½	2½	2½	3
4th December, 1956	2½	2½	2½	3½

(a) On first £10,000; rate on amounts in excess of £10,000 was 1½ per cent.

16. Clearing House Returns—Average Weekly Clearings.—The average weekly clearings in each capital city for the years ended June, 1939 and 1955 to 1959, are shown in the following table.

BANK CLEARINGS(a): AVERAGE WEEKLY CLEARINGS.

(£'000.)

Year ended June—	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1939 ..	17,832	15,415	4,212	2,953	2,055	623	43,090
1955 ..	103,849	95,245	22,072	19,681	13,684	3,670	258,201
1956 ..	109,975	101,153	22,488	21,021	14,089	3,962	272,688
1957 ..	119,381	107,563	25,571	23,042	14,927	4,237	294,721
1958 ..	124,172	114,854	25,835	24,099	15,598	4,427	308,985
1959 ..	135,387	128,870	27,227	25,299	15,786	4,893	337,462

(a) Excludes transactions connected with the issue and redemption of Treasury Bills.

17. Debits to Customers' Accounts—Cheque-paying Banks.—Statistics of debits to customers' accounts have been collected since September, 1945. Generally they represent the total of all cheques drawn by the customers of the banks. In the following table, the average weekly debits to customers' accounts of all cheque-paying banks (including the special departments of the Commonwealth Bank—Rural Credits, Mortgage Bank and Industrial Finance Departments) are shown for each State for the years ended June, 1955 to 1959. In this table, debits to accounts of Australian Governments in capital cities are excluded, as they are subject to abnormal influences and are not uniform for each State.

CHEQUE-PAYING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS.

(Excluding Debits to Australian Government Accounts in Capital Cities.)

(£'000.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	N.T.	Total.
1955 ..	187,471	176,146	53,873	36,288	26,247	10,716	821	483	492,045
1956 ..	200,852	185,369	56,028	39,564	26,918	11,615	1,025	557	521,928
1957 ..	219,368	195,455	62,743	42,685	28,571	12,609	1,229	632	563,292
1958 ..	230,335	207,059	65,655	44,276	30,215	12,930	1,533	724	592,727
1959 ..	248,904	224,729	70,253	46,180	30,731	13,830	1,979	799	637,405

18. Rates of Exchange.—(i) *Oversea Exchange Rates.* In the following table, the par of exchange (based on par values agreed with the International Monetary Fund) and average telegraphic transfer selling rates of exchange for Sydney on a number of oversea countries are shown. Generally, the averages, which are averages of daily quotations, are based on rates quoted by the Commonwealth Bank, but where these were not available rates issued by the Department of Customs and Excise have been used.

OVERSEA EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC TRANSFER SELLING RATES FOR SYDNEY ON OVERSEA COUNTRIES.

Country.	Basis of Quotation.	Par of Ex- change.(a)	Selling Rate 1958-59.	Country.	Basis of Quotation.	Par of Ex- change.(a)	Selling Rate 1958-59.
Belgium ..	Francs to £A.1 ..	112.000	110.680	Japan ..	Yen to £A.1 ..	806.400	798.750
Canada ..	Dollars to £A.1 ..	(b)	2.161	Netherlands ..	Guilders to £A.1 ..	8.512	8.395
Ceylon ..	Pence A. to Rupee ..	22.500	22.806	New Zealand ..	£A. to £NZ.100 ..	(c)	124.538
Denmark ..	Kroner to £A.1 ..	15.472	15.330	Norway ..	Kroner to £A.1 ..	16.000	15.850
Egypt ..	Piastres to £A.1 ..	78.006	77.490	Pakistan ..	Pence A. to Rupee ..	22.500	22.719
Fiji ..	£A. to £F.100 ..	112.610	113.000	Portugal ..	Escudos to £A.1 ..	(c)	63.970
Finland ..	Markka to £A.1 ..	716.800	706.300	Singapore ..	Pence A. to Dollar ..	35.000	35.238
France ..	Francs to £A.1 ..	(b)	1,012.150	South Africa ..	£A. to £SA.100 ..	125.500	125.788
French Oceania	Francs to £A.1 ..	(b)	180.750	Sweden ..	Kronor to £A.1 ..	11.588	11.493
Germany, Fed.	Deutschemarks to			Switzerland ..	Francs to £A.1 ..	(c)	9.666
Rep. of ..	£A.1 ..	9.408	9.291	United Kingdom	£A. to £Eng.100	125.500	125.500
Hong Kong ..	Pence A. to Dollar ..	18.750	18.799	United States of			
India ..	Pence A. to Rupee ..	22.500	22.719	America ..	Dollars to £A.1 ..	2.240	2.235
Indonesia ..	Rupiahs to £A.1 ..	(c)	28.300	U.S.S.R. ..	Roubles to £A.1 ..	(c)	8.924
Italy ..	Lira to £A.1 ..	(b)	1,381.000				

(a) As at 30th June, 1959, established under International Monetary Fund Agreement.
established.

(c) Not a member of International Monetary Fund.

(b) No par value

(ii) *Interstate Exchange Rates.* Exchange rates between the capital cities and towns of each of the States and other States or parts thereof at 30th June, 1959, are shown below. Rates varied from 2s. per £100 between the nearer locations to 10s. per £100 between those more widely separated.

INTERSTATE BANK EXCHANGE RATES, 30th JUNE, 1959.(a)
(s. d. per £100.)

Between—	And—						
	New South Wales.	Victoria.	Brisbane and adjacent towns.	South Australia.	Perth and all but distant towns.	Tasmania.	Aust. Cap. Terr.
Sydney and New South Wales towns	..	2 6	2 6	5 0	7 6	5 0	2 0
Melbourne and Victorian towns ..	2 6	..	5 0	2 6	5 0	2 6	2 0
Brisbane and adjacent towns ..	2 6	5 0	..	7 6	10 0	7 6	2 6
Adelaide and South Australian towns	5 0	2 6	7 6	..	2 6	5 0	5 0
Perth and all but distant towns ..	7 6	5 0	10 0	2 6	..	7 6	7 6
Hobart and Tasmanian towns ..	5 0	2 6	7 6	5 0	7 6	..	5 0
Australian Capital Territory ..	2 0	2 0	2 6	5 0	7 6	5 0	..

(a) Unchanged since 1st January, 1940.

There is no charge for transfers within a city or a town. In all States excepting Queensland and Western Australia, the exchange for transfers between towns in the same State is 2s. per £100. Queensland and Western Australia are divided into zones. The exchange rate for transfers between towns in the same zone is 2s. per £100, with higher rates for inter-zone transfers.

The exchange rate between the Territories of Papua and New Guinea and the mainland is 10s. per £100 for all points.

§ 2. Savings Banks.

1. **General.**—The inauguration of savings banks in Australia dates from 1819, when a private savings bank was opened in Sydney. In 1832, the legislature created "The Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment the funds of the private savings bank were transferred to the new institution. In the other States, provision for placing deposits with savings banks dates from 1841 in Victoria; 1854 in Queensland; 1841 in South Australia; 1863 in Western Australia (a savings bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee savings banks, but, with the exception of the Hobart and Launceston institutions, were later absorbed by, or amalgamated with, State government savings banks. The Commonwealth Savings Bank, established as a branch of the Commonwealth Bank in 1912 and separately constituted in 1928, absorbed the Tasmanian State Savings Bank in 1913, the Queensland State Savings Bank in 1920 and the New South Wales and Western Australian State Savings Banks in 1931.

Post Office savings banks were established in all States from 1864 onwards. These were separate government institutions except in South Australia, where the Post Office acted as agent for the savings bank. Since the federation of the Australian States in 1901, post offices have been controlled by the Commonwealth Government, but they continued to act as savings bank agencies for the State institutions until the establishment of the Commonwealth Bank in 1912. They now act as agents for the Commonwealth Savings Bank.

During 1956, four new savings banks, the Bank of New South Wales Savings Bank Ltd., the Australia and New Zealand Savings Bank Ltd., the C.B.C. Savings Bank Ltd., and The Rural and Industries Bank of Western Australia, were established. Three of these are associated with and operate from the same premises as existing private trading banks and the other is a division of a State bank—The Rural and Industries Bank of Western Australia. Savings banks operating at the end of 1959 were—the Commonwealth Savings Bank and the Australian and New Zealand Savings Bank Ltd. (in all States and Territories), the Bank of New South Wales Savings Bank Ltd. (in all States and Territories except South Australia and Tasmania) the C.B.C. Savings Bank Ltd. (in all States except South Australia and Tasmania, and in the Australian Capital Territory), The State Savings Bank of Victoria, The Savings Bank of South Australia, The Rural and Industries Bank of Western Australia, and the two trustee banks, The Launceston Bank for Savings and The Hobart Savings Bank.

The prime object of the foundation of savings banks in Australia was the encouragement of thrift, deposits of one shilling and upwards being accepted. Although depositors may not operate on their savings bank accounts by means of cheques, they have practically all the other advantages of a current account and in addition receive interest on their minimum monthly balances. No charge is made by the banks for keeping the accounts.

Cheque accounts are available at most savings banks to non-profit organizations such as friendly, co-operative and charitable societies. As with savings bank accounts, interest is allowed and no charge is made for keeping these accounts. Since March, 1958, similar facilities have been available at the State Savings Bank of Victoria to other depositors. However, the cheque accounts of these depositors do not bear interest. The statistics relating to deposits, etc., which follow include these cheque accounts. Separate details are also given in para. 6, page 781.

All savings banks, including trustee savings banks but not State savings banks, are subject to the Banking Act 1959. Details of this Act and the special provisions applying to savings banks are given on pages (759–60.)

2. **Branches and Agencies.**—The number of branches and agencies in Australia of the various savings banks at 30th June, 1959, are given in the following table.

ALL SAVINGS BANKS: NUMBER OF BRANCHES AND AGENCIES AT 30th JUNE, 1959.

Bank.	Branches.	Agencies.
Commonwealth Savings Bank	639	6,384
Australia and New Zealand Savings Bank Ltd.	434	393
Bank of New South Wales Savings Bank Ltd.	645	222
C.B.C. Savings Bank Ltd.	361	82
The State Savings Bank of Victoria	347	602
The Savings Bank of South Australia	95	574
The Rural and Industries Bank of Western Australia	40	26
The Launceston Bank for Savings	19	34
The Hobart Savings Bank	21	14
Total	2,601	8,331

3. **Number of Operative Accounts.**—The following table shows the number of operative savings bank accounts in existence at the end of June, 1958 and 1959. It should be noted that these figures relate to the number of accounts and not necessarily to the number of depositors.

ALL SAVINGS BANKS: NUMBER OF OPERATIVE ACCOUNTS.(a)

State or Territory.	At end of June.	
	1958.	1959.
New South Wales	2,740,364	2,878,656
Victoria	2,437,639	2,565,242
Queensland	1,014,008	1,080,229
South Australia	863,022	888,614
Western Australia	497,690	527,079
Tasmania	295,050	299,328
Northern Territory	12,767	13,965
Australian Capital Territory	25,917	29,278
Total	7,886,457	8,282,391

(a) Excludes school bank accounts and inoperative accounts i.e., accounts of less than £1 which have not been operated on for more than two years.

4. **Business Transacted.**—The following table shows details of the business transacted in Australia by savings banks during the years ended 30th June, 1958 and 1959:—

**ALL SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA.
(£'000.)**

State or Territory.	Year ended June, 1958.				Year ended June, 1959.			
	Deposits During Year.	Withdrawals During Year.	Interest Added to Accounts During Year.	Amount on Deposit at end of June, 1958.	Deposits During Year.	Withdrawals During Year.	Interest Added to Accounts During Year.	Amount on Deposit at end of June, 1959.
New South Wales	452,165	435,978	10,647	449,018	508,185	481,121	12,191	488,273
Victoria	430,551	418,804	10,315	433,631	512,312	499,064	11,575	458,454
Queensland	161,596	156,620	3,660	153,244	181,664	172,442	4,187	166,653
South Australia	141,074	138,462	3,845	148,858	156,746	152,778	4,326	157,152
Western Australia	71,190	69,500	1,565	65,948	78,259	74,487	1,779	71,499
Tasmania	33,148	32,714	1,048	40,241	36,319	35,242	1,144	42,462
Northern Territory	3,070	2,910	44	2,098	3,246	3,156	51	2,239
Australian Capital Territory	5,758	5,341	86	3,805	7,005	6,318	108	4,600
Total	1,298,552	1,260,329	31,210	1,296,843	1,483,736	1,424,608	35,361	1,391,332

5. **Depositors' Balances.**—The amount at credit of depositors' accounts and the average per head of population for each State and Territory at the end of June, 1939 and 1955 to 1959, are shown in the following table:—

ALL SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA.

At end of June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Aust- ralia.
COMMONWEALTH SAVINGS BANK. (£'000.)									
1939..	87,474	11,242	29,045	3,167	12,396	2,358	99	319	146,100
1955..	358,645	104,597	124,814	30,547	53,629	13,763	1,482	2,575	690,052
1956..	363,711	110,215	126,998	31,880	54,295	14,312	4,384		705,795
1957..	363,406	114,542	129,816	33,590	53,697	15,252	4,470		714,773
1958..	367,439	117,805	132,545	35,222	53,613	16,119	4,820		727,563
1959..	380,962	122,577	138,924	37,374	54,987	17,020	5,364		757,208

**STATE SAVINGS BANKS.
(£'000.)**

1939..	..	69,219	..	24,230	..	..	..	..	93,449
1955..	..	260,151	..	101,145	..	..	..	..	361,296
1956..	..	264,317	..	103,876	635	..	..	..	368,828
1957..	..	266,276	..	108,811	2,302	..	..	..	377,389
1958..	..	272,807	..	113,636	3,507	..	..	..	389,950
1959..	..	281,296	..	119,778	4,471	..	..	..	405,545

**TRUSTEE SAVINGS BANKS: HOBART AND LAUNCESTON.
(£'000.)**

1939..	..	..	..	..	..	6,038	..	..	6,038
1955..	..	..	..	..	..	22,046	..	..	22,046
1956..	..	..	..	..	..	22,899	..	..	22,899
1957..	..	..	..	..	..	23,507	..	..	23,507
1958..	..	..	..	..	..	24,122	..	..	24,122
1959..	..	..	..	..	..	25,442	..	..	25,442

**PRIVATE SAVINGS BANKS.
(£'000.)**

1956..	22,843	11,644	5,702	..	3,004	..	282	43,475
1957..	58,778	30,751	14,792	..	6,694	..	726	111,741
1958..	81,579	43,019	20,699	..	8,828	..	1,083	155,208
1959..	107,311	54,581	27,729	..	12,041	..	1,475	203,137

**ALL SAVINGS BANKS.
(£'000.)**

1939..	87,474	80,461	29,045	27,397	12,396	8,396	99	319	245,587
1955..	358,645	364,748	124,814	131,692	53,629	35,809	1,482	2,575	1,073,394
1956..	386,554	386,176	132,700	135,756	57,934	37,211	1,656	3,010	1,140,997
1957..	422,184	411,569	144,608	142,401	62,693	38,759	1,894	3,302	1,227,410
1958..	449,018	433,631	153,244	148,858	65,948	40,241	2,098	3,805	1,296,843
1959..	488,273	458,454	166,653	157,152	71,499	42,462	2,239	4,600	1,391,313

**PER HEAD OF POPULATION.
(£. s. d.)**

1939..	31	16	7	42	16	8	28	10	7	45	18	6	26	7	5	35	1	5	15	14	8	25	7	4	35	4	11
1955..	102	15	1	144	11	4	92	16	7	160	13	9	81	8	9	113	15	11	84	6	5	79	8	4	116	13	3
1956..	108	15	8	148	4	9	96	16	3	159	19	10	85	10	6	116	8	3	90	10	0	87	5	11	121	0	7
1957..	116	10	8	153	18	11	103	10	8	163	1	10	90	12	3	118	4	1	98	15	8	87	4	4	127	5	8
1958..	121	12	1	158	8	4	108	0	2	166	0	6	93	11	2	119	16	9	106	9	9	92	7	5	131	14	1
1959..	129	12	4	162	17	9	115	13	0	170	13	3	99	8	5	124	0	10	106	18	4	99	17	1	138	5	9

6. **Cheque Accounts.**—At most savings banks, cheque accounts are available to non-profit organizations such as friendly, co-operative and charitable societies. Similar facilities are also available to other depositors at the State Savings Bank of Victoria. Details of the transactions on these accounts during the year ended June, 1959 (excluding the Savings Bank of South Australia), together with the number of operative accounts and the amount on deposit at the end of June, 1959, were as follows:—Deposits during the year, £260,635,969; withdrawals during the year, £255,763,933; interest added during the year, £606,889; number of operative accounts at the end of year, 127,168; amount on deposit at end of year, £35,996,396. These figures are included in the statistics in previous paragraphs.

7. **School Banking.**—With the object of encouraging principles of thrift among children, agencies of the savings banks have been established at most of the schools throughout Australia. Particulars of operative accounts for the Commonwealth at the end of June 1939 and 1955 to 1959, appear below:—

SCHOOL SAVINGS BANKS: AUSTRALIA.

At end of June—				Number of School Agencies.	Number of Operative Accounts.	Deposits.	Deposits per Operative Account.
1939..	..	..	..	9,535	560,116	£ 1,090,703	£ s. d. 1 18 11
1955..	..	..	..	8,210	761,974	5,280,808	6 18 7
1956..	..	..	..	8,591	825,692	5,785,495	7 0 2
1957..	..	..	..	8,294	895,139	6,429,490	7 3 8
1958..	..	..	..	8,650	986,758	6,924,422	7 1 4
1959..	..	..	..	8,856	1,050,742	7,479,254	7 2 4

8. **Assets.**—The assets within Australia of all Savings Banks as at the end of June 1958 and 1959, are given in the following table:—

ALL SAVINGS BANKS: ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Item.	At end of June.	
	1958.	1959.
Coin, Bullion and Australian Notes	2,812	3,253
Deposits with Commonwealth Bank	104,633	121,979
Deposits with Other Banks	54,644	53,693
Notes, Bills, Cheques, &c., of Other Banks	83	142
Australian Public Securities (including Treasury Bills)—		
Commonwealth and States	719,354	740,128
Local and Semi-governmental Authorities	224,502	248,938
Other Securities .. .. .	..	..
Loans, Advances and Bills Discounted	228,144	260,982
Bank Premises, Furniture and Sites	12,911	15,761
Bills Receivable and all Other Assets	11,101	12,220
Total Assets	1,358,184	1,457,096

(a) Includes assets in Territories of Papua, New Guinea and Norfolk Island.

9. **War Savings and Savings Certificates.**—Sales of savings certificates and stamps under the War Savings and Savings Certificate schemes, particulars of which were given in earlier issues of the Official Year Book (*see* No. 37, page 586), were discontinued after 31st January, 1949, except for some sales made to wind up savings groups, etc. This method of saving was replaced by special savings schemes to operate through the savings banks. Employers were asked to co-operate by forming employee savings groups and by making regular deductions from wages and salaries for payment into group savings bank accounts, and thence, at the end of each quarter, to individual accounts. The total value of savings certificates outstanding at 30th June in each of the last five years was:—1955, £26,615,000; 1956, £23,365,000; 1957, £20,043,000; 1958, £16,004,000; 1959, £10,633,000.

10. **Commonwealth Savings Bank of Australia.**—(i) *General.* The Savings Bank Department of the Commonwealth Bank opened for business in Victoria on 15th July, 1912; in Queensland on 16th September, 1912; in the Northern Territory on 21st October, 1912; in Tasmania on 1st January, 1913, and in New South Wales, South Australia and Western Australia on 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank on 1st January, 1913, the Queensland State Savings Bank was taken over in 1920 and the New South Wales and Western Australian State Savings Banks in 1931. The Savings Bank Department was separated from the General Bank on 9th June,

1928, and established as a separate institution known as the "Commonwealth Savings Bank of Australia". It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The Commonwealth Bank Act 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the savings bank. This Commission was never appointed and the Commonwealth Bank Act 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank. Under the provisions of the Commonwealth Banks Act 1959, which came into operation on 14th January, 1960, the Commonwealth Savings Bank was maintained in the same form but was placed under the control of the Commonwealth Banking Corporation (*see also* para. 6, p. 767, Commonwealth Banking Corporation). Under the Banking Act 1959, the Commonwealth Savings Bank is subject to the same conditions as apply to the private savings banks.

(ii) *Balance-sheet, 30th June, 1958 and 1959.* Particulars of the liabilities and assets of the Commonwealth Savings Bank as at 30th June, 1958 and 1959, were as follows:—

COMMONWEALTH SAVINGS BANK(a): LIABILITIES AND ASSETS, 30th JUNE.
(£'000.)

Liabilities.	1958.	1959.	Assets.	1958.	1959.
Reserve Fund.. ..	9,918	10,326	Cash Balances and Money at Short Call	69,625	84,505
Depositors' Balances and Accrued Interest	734,321	764,817	Australian Notes and Coin	1,075	1,209
Contingency Account and other Liabilities ..	18,977	19,043	Government Securities	467,718	470,552
			Securities of Municipal and other Public Authorities	83,171	84,740
			Bank Premises	8,612	10,522
			Loans and Advances ..	119,299	127,473
			Other Assets.. ..	13,716	15,185
Total	763,216	794,186	Total	763,216	794,186

(a) Includes branches in London, in the Territories of Papua, New Guinea, and Norfolk Island, and in the British Solomon Islands.

(iii) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements, the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. Net profits for the years ended 30th June, 1939 and 1955 to 1959, and the distribution of those profits, are shown in the following table.

COMMONWEALTH SAVINGS BANK: DISTRIBUTION OF PROFITS.
(£.)

Year ended 30th June—	Total Profit.	Payments to State Authorities under Savings Bank Amalgamation Agreements.					Published Profit.	Distribution of Published Profit.	
		New South Wales. (a)	Queensland. (b)	Western Australia. (b)	Tasmania. (b)	Total.		National Debt Sinking Fund.	Savings Bank Reserve Fund.
1939 ..	532,736	168,878	30,464	13,251	3,861	216,454	316,282	158,141	158,141
1955 ..	1,855,901	587,959	130,415	26,284	6,327	750,985	1,104,916	552,458	552,458
1956 ..	1,251,153	453,105	60,347	12,211	304	525,967	725,186	362,593	362,593
1957 ..	890,419	394,386	..	..	..	394,386	c 580,386	290,193	290,193
1958 ..	1,415,722	516,714	..	..	..	516,714	c 874,926	437,463	437,463
1959 ..	1,302,708	507,071	..	..	..	507,071	c 815,872	407,936	407,936

(a) Paid to the Rural Bank of New South Wales. (b) Paid to State Consolidated Revenue Funds. (c) After adding amounts due by State Authorities under Savings Bank Amalgamation Agreements or deducting amounts due to State Authorities which have been offset.

11. *State Savings Banks.*—(i) *General.* State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); The Rural and Industries Bank of Western Australia (1956).

(ii) *Assets.* The assets of the State savings banks, excluding the Rural and Industries Bank of Western Australia, as at the date of their respective balance sheets, are shown in the following table.

STATE SAVINGS BANKS: ASSETS AT 30th JUNE, 1958 AND 1959.

Particulars.	1959.			1958.
	The State Savings Bank of Victoria including Crédit Foncier Dept.	The Savings Bank of South Australia.	Total.	Total.
Cash, cash and fixed deposits at other Banks	40,308	17,892	58,200	58,215
Government Securities (including Treasury Bills)	101,200	56,454	157,654	160,364
Local and Semi-Governmental Securities ..	86,698	25,656	112,354	106,359
Mortgages	67,033	25,790	92,823	81,228
Landed and House Property	2,950	1,485	4,435	3,550
All other Assets	2,788	1,093	3,881	3,446
Total Assets	300,977	128,370	429,347	(a) 413,162

(a) Details were: State Savings Bank of Victoria (including Crédit Foncier Department), £291,451,000, The Savings Bank of South Australia, £121,711,000.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the State savings banks included in the above table are given below for the years 1958 and 1959.

STATE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED
30th JUNE, 1958 AND 1959.
(£'000.)

Particulars.	1959.			1958.
	State Savings Bank of Victoria including Crédit Foncier Department.	Savings Bank of South Australia.	Total.	Total.
<i>Receipts—</i>				
Total—Interest, Dividends, Rents, and all other	11,884	4,920	16,804	15,207
<i>Expenditure—</i>				
Interest allotted to Depositors including provision for accrued interest ..	7,359	3,391	10,750	9,642
Expenses of Management and all other Expenditure	4,127	1,117	5,244	4,800
Total	11,486	4,508	15,994	14,442
Profit for year	398	412	810	765
Balance of profit and loss account brought forward	177	164	341	329
Total	575	576	1,151	1,094
<i>Distribution of Profits—</i>				
Amount written off Bank Premises ..	197	(a)	(b) 197	(b) 164
Amount carried to Reserves and Depreciation Funds	215	410	625	589
Balance of Profit and Loss Account carried forward	163	166	329	341

(a) Not available, included with expenses of management, &c. (b) Incomplete, see footnote (a).

12. **Trustee Savings Banks, Hobart and Launceston.**—(i) *General.* Two Trustee Savings Banks, Hobart and Launceston, operate within Tasmania. These banks commenced business in 1845 and 1835 respectively. Under the Banking Act 1959, they are subject to the same conditions as apply to the Commonwealth Savings Bank and the private savings banks.

(ii) *Assets.* The assets of the Trustee Savings Banks as at 31st August, 1958 and 1959, are set out in the following table:—

TRUSTEE SAVINGS BANKS: ASSETS AT 31st AUGUST, 1958 AND 1959.
(£'000.)

Particulars.	1959.			1958.
	The Hobart Savings Bank.	The Launceston Bank for Savings.	Total.	Total.
Cash, Cash and Fixed Deposits with other Banks	1,592	1,521	3,113	2,835
Government Securities (including Treasury Bills)	3,300	3,624	6,924	6,634
Local and Semi-Governmental Securities	6,512	3,731	10,243	9,401
Mortgages	3,129	3,770	6,899	6,670
Landed and House Property	441	152	593	580
All other Assets	183	156	339	309
Total	15,157	12,954	28,111	(a) 26,429

(a) Separate details were: The Hobart Savings Bank, £14,277,000 and the Launceston Bank for Savings, £12,152,000.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the Trustee Savings Banks for the year ended 31st August, 1958 and 1959, are given below:—

TRUSTEE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED 31st AUGUST, 1958 AND 1959.
(£'000.)

Particulars.	1959.			1958.
	The Hobart Savings Bank.	The Launceston Bank for Savings.	Total.	Total
Receipts—				
Total—Interest, Dividends, Rents and all other	593	533	1,126	1,040
Expenditure—				
Interest allotted to Depositors	418	350	768	676
Expenses of Management	127	116	243	234
All other Expenditure	4	..	4	4
Total	549	466	1,015	914
Profit for Year	44	67	111	126
Balance of Profit and Loss Account brought forward	54	53	107	107
Total	98	120	218	233
Distribution of Profits—				
Amount written off Bank Premises	19	34	53	55
Amount carried to Reserves and Depreciation Fund	25	32	57	71
Balance of Profit and Loss Account carried forward	54	54	108	107

13. **Private Savings Banks.**—(i) *General.* The Bank of New South Wales Savings Bank Ltd. and the Australia and New Zealand Savings Bank Ltd. commenced business on 19th January, 1956, and the C.B.C. Saving Bank Ltd. on 16th July, 1956. Each of these Savings Banks is subject to the provisions of the Banking Act 1959. (See para. (f), page 760.)

(ii) *Assets.* The assets of the private savings banks as at the date of their respective balance-sheets are shown in the following table:—

PRIVATE SAVINGS BANKS: ASSETS 1958 AND 1959.

(£'000.)

Particulars.	1959.				1958.
	The Australia and New Zealand Savings Bank Ltd. (a)	The Bank of New South Wales Savings Bank Ltd. (a)	C.B.C. Savings Bank Ltd. (b)	Total.	Total.
Cash at Bankers—					
Commonwealth Bank	6,405	13,300	3,914	23,619	16,418
Other Banks	3,519	7,179	3,496	14,194	18,109
Government Securities—					
Treasury Bills	310	600	200	1,110	940
Other	29,942	58,698	18,687	107,327	80,875
Local and Semi-Governmental Securities	17,956	26,238	4,510	48,704	32,462
Loans and Advances (including accrued interest and other accounts)	10,693	22,450	5,437	38,580	25,127
Total	68,825	128,465	36,244	233,534	c 173,931

(a) At 30th September. (b) At 30th June. (c) Separate details were:—The Australia and New Zealand Savings Bank Ltd., £50,970,000; the Bank of New South Wales Savings Bank Ltd., £96,246,000; C.B.C. Savings Bank Ltd., £26,715,000.

(iii) *Profit and Loss.* Details of the profit and loss accounts of the private savings banks included in the above table are given below for the years 1958 and 1959.

PRIVATE SAVINGS BANKS: PROFIT AND LOSS.(a)

(£.)

Year.	The Australia and New Zealand Savings Bank Ltd.(b)	The Bank of New South Wales Savings Bank Ltd.(b)	C.B.C. Savings Bank Ltd.(c)	Total.
1958	161,486	198,483	69,992	429,961
1959	240,510	270,203	112,121	622,834

(a) Net profit after allowing for all expenses and providing for reserves and contingencies, etc.
(b) Year ended 30th September. (c) Year ended 30th June.

14. *Classification of Depositors' Balances.*—The classification of deposits published by savings banks does not permit a fully detailed analysis with respect to Australia as a whole but information supplied to the Royal Commission on Monetary and Banking Systems for all savings banks except the Hobart trustee savings bank shows that at 30th June, 1936, the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits; balances of over £100 but under £250, 21 per cent.; over £250 but under £500, 23 per cent.; over £500 but under £1,000, 25 per cent.; while those of over £1,000 accounted for 10 per cent. School, penny bank and small inoperative accounts were excluded in determining these percentages.

A similar classification as at 30th June, 1936, 1939 and 1955 to 1959, but relating only to the combined State Savings Banks of Victoria and South Australia, is shown below.

STATE SAVINGS BANKS: CLASSIFICATION OF DEPOSITS.

(Per cent.)

At 30th June—	£100 and under.	£101-£300.	£301-£500.	Total under £501.	£501-£1,000.	Over £1,000.
1936	19.54	26.13	17.84	63.51	27.42	9.07
1939	20.27	27.15	17.90	65.32	26.14	8.54
1955	40.45			40.45	30.34	29.21
1956	39.93			39.93	29.90	30.17
1957	38.43			38.43	28.83	32.74
1958	37.64			37.64	28.03	34.33
1959	36.99			36.99	26.05	36.96

15. Rates of Interest on Deposits.—The following table shows the rates of interest allowed by Savings Banks at the 30th June, 1955 to 1959.

SAVINGS BANKS: INTEREST RATES ON DEPOSITS.

(Per cent. per annum.)

Particulars.	Interest Rates at 30th June.				
	1955.	1956.	1957.	1958.	1959.
Commonwealth Savings Bank, State Savings Bank of Victoria, Bank of New South Wales Savings Bank Ltd.(a), Australia and New Zealand Savings Bank Ltd.(a), C.B.C. Savings Bank Ltd.(b), Rural and Industries Bank of Western Australia(c)—					
Ordinary Accounts(d)—					
£1 to £500	2½	2½	2½	2½	3
£501 to £1,000	1½	2½	2½	2½	3
£1,001 to £1,500	1½	1½	1½	1½	3
£1,501 to £2,000	Nil	Nil	Nil	Nil	3
Friendly and other Society Accounts—					
£1 to £2,000	2½	2½	2½	2½	3½
£2,001 and over	1½	1½	1½	1½	3½
Deposit Stock(d)(e)—					
£10 to £1,000	2	2½	2½	2½	3½
Savings Bank of South Australia—					
Ordinary Accounts(d)—					
£1 to £500	2½	2½	2½	2½	3½
£501 to £750	2½	2½	2½	2½	3½
£751 to £1,500	1½	2½	2½	2½	3½
£1,501 to £2,000	Nil	Nil	Nil	Nil	3½
Friendly and other Society Accounts—					
£1 to £500	2½	2½	2½	2½	3
£501 to £2,000	2½	2½	2½	2½	3
£2,001 and over	1½	1½	1½	1½	1½
Deposit Stock(d)—					
£10 to £2,000	2	2½	2½	2½	3½
Trustee Savings Banks—Hobart and Launceston—					
Ordinary Accounts(d)—					
£1 to £500(f)	2½	3	3	3	3½
£501 to £1,500	Nil	Nil	1½	1½	3½
Friendly and Other Society Accounts—					
£1 to £500(f)	2½	3	3	3	3½
£501 to £1,500	Nil	Nil	1½	1½	3½
£1,501 and over	Nil	Nil	Nil	Nil	1½

(a) Commenced Savings Bank business on 19th January, 1956. (b) Commenced Savings Bank business on 16th July, 1956. (c) Commenced Savings Bank business on 5th April, 1956. (d) No interest is payable on amounts in excess of the maximum amount shown. (e) State Savings Bank of Victoria only. (f) Prior to the 1st March, 1957, the maximum amount on which interest was payable was £450.

C. REGISTERED BUILDING AND CO-OPERATIVE SOCIETIES.

§ 1. Registered Building Societies.

1. **Summary.**—During 1957, returns were received from 1,261 societies, but the information was not exhaustive, as particulars regarding a number of organizations were not included. In the following table, general information is given relating to the societies for the year 1956-57.

REGISTERED BUILDING SOCIETIES: SUMMARY, 1956-57.

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Societies making returns—							
Permanent .. No.	42	18	5	5	6	5	81
Terminating .. No.	1,148	2	10	17	3	..	1,180
Total .. No.	1,190	20	15	22	9	5	1,261
Number of shareholders No.	127,935	13,342	29,986	24,266	24,992	9,380	229,901
„ shares '000. (b)	2,560	1,219	12,693	134	(c)	151	(c)
„ borrowers No. (d)	13,348	16,482	13,105	4,167	4,816	3,223	55,141
	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)
Income for year from interest, etc. ..	1,601	864	404	95	260	183	3,407
Working expenses for year	1,067	747	102	71	50	29	2,066
Amount of deposits during year ..	714	1,377	1,491	540	927	1,244	6,293
Repayment of loans during year ..	2,606	2,431	1,287	353	662	639	7,978
Loans granted during year	16,668	2,582	2,287	590	1,414	942	24,483

(a) Year 1957; excludes Co-operative Housing Societies, for details of which see para. 3.
 (b) Terminating societies only. (c) Not available. (d) Permanent societies only.

2. **Liabilities and Assets.**—Particulars of liabilities and assets in 1956-57 of the 1,261 societies mentioned in the previous paragraph are shown below.

REGISTERED BUILDING SOCIETIES: LIABILITIES, 1956-57.

(£'000.)

State.	Paid-up Capital and Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and Other Liabilities.	Total Liabilities.
New South Wales ..	33,498	2,551	1,338	92,275	129,662
Victoria (a) ..	4,380	(b) 1,490	2,654	7,235	15,759
Queensland ..	7,564	125	231	700	8,620
South Australia ..	2,323	273	322	101	3,019
Western Australia ..	3,075	87	1,010	(c) 659	4,831
Tasmania ..	1,814	192	1,281	210	3,497
Total ..	52,654	4,718	6,836	101,180	165,388

(a) Year 1956. (b) Includes balances of Profit and Loss Accounts, £111,000. (c) Includes net accumulated profits, £197,000.

REGISTERED BUILDING SOCIETIES: ASSETS, 1956-57.
(£'000.)

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit.	Other Assets.	Total Assets.
New South Wales ..	(a) 127,262	(b)	(b)	2,400	129,662
Victoria(c) ..	15,273	171	73	242	15,759
Queensland ..	(a) 8,280	126	58	156	8,620
South Australia ..	2,767	41	79	132	3,019
Western Australia ..	4,520	84	65	162	4,831
Tasmania ..	3,270	41	7	179	3,497
Total ..	161,372	(d) 463	(d) 282	3,271	165,388

(a) Includes Starr-Bowkett and other terminating societies:—New South Wales, £111,514,935; Queensland, £1,554,315. (b) Not available. Included in Other Assets. (c) Year 1956.
(d) Incomplete, see note (b).

3. **Co-operative Housing Societies, Victoria.**—In addition to the information shown above, the following details of co-operative housing societies in Victoria have been extracted from the 12th Annual Report of the Registrar of Co-operative Housing Societies. At 30th June, 1957, 400 co-operative housing societies were registered in Victoria with 31,687 members who had subscribed for 1,210,271 shares, giving a nominal share capital subscribed of £62,488,439. For the twelve months ended 30th April, 1957, returns were submitted by 386 societies, the total income of those societies being £273,430 and total expenditure £245,422. The liabilities at 30th April, 1957, of the societies submitting returns were:—bank or other loans, £36,594,356; subscriptions, £5,750,239; surplus interest and management expenses, £474,956; other liabilities, £1,157,749, total liabilities, £43,977,300. Assets at the same date consisted of:—advances, £43,557,951; other assets, £419,349; total assets, £43,977,300.

§ 2. Co-operative Societies.

Co-operative societies are divided into three classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operative Act 1923-1950. A summary of the business of all co-operative societies for the years 1956-57 or 1957 for all States except Western Australia is given in the following tables. Separate particulars for each of the three types of Co-operative Societies are given in the annual bulletin *Finance, Part I.—Public and Private Finance* (see No. 49, pp. 175 and 176).

CO-OPERATIVE SOCIETIES.

Particulars.	N.S.W. 1956-57.	Victoria 1956-57.	Queensland 1956-57.	S. Australia 1957.	Tasmania 1956-57.
SUMMARY.					
Number of Societies ..	301	106	179	68	9
„ Branches ..	(a)	(a)	102	(a)	15
„ Members ..	205,050	66,400	129,750	109,636	3,713
	£'000.	£'000.	£'000.	£'000.	£'000.
Gross Turnover (Sales) ..	111,741	28,300	56,381	15,282	1,801
Other Income ..	576	1,722	2,284	982	109
Total Income ..	112,317	30,022	58,665	16,264	1,910
Total Purchases during Year ..	110,546	23,071	45,996	12,566	1,455
Other Expenditure ..	5,921	10,616	10,616	3,440	462
Total Expenditure ..	110,546	28,992	56,612	16,006	1,917
Rebates and Bonuses ..	1,983	257	862	562	..
Dividends on Share Capital ..	389	218	196	107	19

(a) Not available.

CO-OPERATIVE SOCIETIES—*continued.*

Particulars.	N.S.W. 1956-57.	Victoria 1956-57.	Queensland 1956-57.	S. Australia 1957.	Tasmania 1956-57.
LIABILITIES AND ASSETS. (£'000.)					
<i>Liabilities—</i>					
Paid-up Capital	9,698	3,532	6,020	1,974	490
Loan Capital .. ..	..	469	6,279	2,627	223
Bank Overdrafts	6,817	2,012	3,798	1,297	419
Accumulated Profits	6,728	830	941	528	64
Reserve Funds .. ..	..	3,497	5,039	1,477	25
Sundry Creditors .. ..	..	2,631	8,128	1,183	138
Other Liabilities	11,266	788	364	2,294	118
<i>Total Liabilities</i>	<i>34,509</i>	<i>13,759</i>	<i>30,569</i>	<i>11,380</i>	<i>1,477</i>
<i>Assets—</i>					
Land and Buildings .. ..	..	..	5,605	2,310	338
Machinery, Plant and other Fixed Assets	14,829	6,998	8,869	1,584	99
Stocks	10,906	2,272	4,299	3,577	321
Sundry Debtors	6,757	3,624	9,720	1,573	491
Cash in hand and on deposit .. ..	..	395	932	532	34
Profit and Loss Account .. ..	..	25	113	22	..
Other Assets	2,017	445	1,031	1,782	194
<i>Total Assets</i>	<i>34,509</i>	<i>13,759</i>	<i>30,569</i>	<i>11,380</i>	<i>1,477</i>

D. INSURANCE.

§ 1. Introductory.

1. **Legislation.**—Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to “insurance other than State insurance; also State insurance extending beyond the limits of the State concerned”. Commonwealth legislation includes the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., the Insurance Act 1932-1937 requiring the lodgment of deposits by insurance companies, and the Life Insurance Act 1945-1953 generally regulating life assurance business in Australia. The Marine Insurance Act 1909 and the Insurance Act 1932-1937 have limited application, and, except for life assurance business, which is regulated by the Life Insurance Act 1945-1953, insurance business is conducted almost entirely under State laws.

2. **Insurance Act 1932-1937.**—Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer.

Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies.

Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act:—

Staff superannuation schemes; schemes of religious organizations solely for insurance of their property; and friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and, under the Life Insurance Act 1945–1953, ceased to apply to life assurance business.

3. Life Insurance Act 1945–1953.—The objects of this Act are:—(a) To replace all State legislation on the subject of life assurance, except that relating to the life assurance operations of State insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (b) to appoint an Insurance Commissioner to exercise active supervision of the activities of life assurance companies, with a view to securing the greatest possible protection for policy holders; (c) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act was assented to on 16th August, 1945, and came into operation on 20th June, 1946. A summary of the provisions of the Act is given in Official Year Book No. 37, pages 595 to 597.

The main amendment made by the Life Insurance Act, No. 94 of 1953 was the repeal of Part VI. of the principal Act, which provided for the establishment of a Commonwealth Government Insurance Office.

4. Export Payments Insurance Corporation Act 1956.—Details of the operations of the Export Payments Insurance Corporation set up under this Act may be found in § 5 of Chapter XIII., Trade (see p. 478).

5. Deposits under Insurance Acts.—Deposits lodged under the Insurance Acts at 30th June, 1959, totalled £7,562,354, comprising £1,423,180 held by the Commonwealth in respect of Life Assurance and £5,916,884 held by the Commonwealth and £222,290 held by the States in respect of other forms of insurance. The deposits consisted of government, local, and semi-governmental securities £5,241,704, fixed deposits £1,000, bank guarantees and undertakings £1,750,000, Corporation Debentures and Stock £84,500, cash £5,000 and titles and mortgages £480,150.

§ 2. Life Assurance.

1. General.—Statistical returns have been collected from life assurance institutions since 1907. Until 1946, these returns were collected under the Census and Statistics Act. Since 1947, returns lodged under the Life Insurance Act 1945–1953 have been used to compile life assurance statistics. This change in method of collection has resulted in some slight changes in definition and, as a result, the statistics for 1947 and later years are not in all cases strictly comparable with those for earlier years. In earlier years, statistics of revenue and expenditure and of assets and liabilities, although generally related only to the life assurance business of the offices making the returns, included, in some cases, a small amount of other classes of business. Under the Life Insurance Act 1945–1953, companies transacting life assurance business are required to set up separate statutory funds for their life assurance business. As a result of this, it has been possible to separate life assurance business from other classes of business. Except where otherwise indicated the figures in the succeeding paragraphs refer to Australian business only. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures.

2. **Offices Transacting Business.**—The number of offices which transacted life assurance business in Australia during 1958 was 29, including nine oversea companies. Of the twenty Australian offices, six are purely mutual, including one which transacts general business in respect of which share capital is used, twelve are public companies, and two are State Government institutions. Of the total offices, sixteen transacted ordinary business only and the remainder both ordinary and industrial business. Where possible, ordinary and industrial business have been kept separate.

3. **Australian Business—Policies in Existence.**—In the following table, details of policies on the registers in each State and in the Australian Capital Territory are given for the year 1958—

LIFE ASSURANCE : POLICIES EXISTING IN AUSTRALIA, 1958.

State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.		
	Number of Policies.	Sum Assured. (£'000.)	Bonus Additions. (£'000.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Premiums. (£'000.)

ORDINARY DEPARTMENT.

New South Wales ..	1,272,500	925,122	77,190	30,863	3,146	1,860	507
Victoria ..	976,227	857,569	64,782	27,203	5,790	6,485	1,866
Queensland(b) ..	606,746	423,378	29,869	12,794	975	105	24
South Australia(c) ..	341,879	268,398	20,933	9,071	858	101	23
Western Australia ..	233,923	176,180	14,697	6,046	558	72	14
Tasmania ..	117,964	99,785	7,409	3,132	355	109	31
Australian Capital Territory ..	27,704	122,956	2,589	1,643	334	754	106
Australia(b) ..	3,576,943	2,873,388	217,469	90,752	12,016	9,486	2,571

INDUSTRIAL DEPARTMENT.

New South Wales ..	1,299,189	124,077	4,319	5,864	..	..	..
Victoria ..	1,102,774	100,390	3,718	4,759	..	..	..
Queensland(b) ..	428,953	40,469	1,317	1,897	..	..	..
South Australia(c) ..	378,679	32,553	1,156	1,533	..	..	..
Western Australia ..	220,705	21,502	707	997	..	..	..
Tasmania ..	87,714	8,032	301	369	..	..	..
Australian Capital Territory ..	12,812	1,603	59	74	..	..	..
Australia(b) ..	3,530,826	328,626	11,577	15,493	..	..	..

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

The following table shows particulars of policies existing at the end of the years 1939 and 1954 to 1958 inclusive:—

LIFE ASSURANCE: POLICIES EXISTING IN AUSTRALIA.

At End of Year—	Assurance and Endowment Policies.				Annuity Policies.	
	Number of Policies.	Sum Assured. (£'000.)	Average per Policy. (£.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)

ORDINARY DEPARTMENT.

1939	..	..	1,243,378	427,291	344	(a) 13,954	3,826	385
1954	..	..	3,033,250	1,741,160	574	59,593	16,965	6,268
1955	..	..	3,183,644	1,970,750	619	66,551	17,135	7,199
1956	..	..	3,319,429	2,223,270	670	73,663	17,294	8,172
1957	..	..	3,445,644	2,533,396	735	82,332	13,308	8,565
1958	..	..	3,576,943	2,873,388	803	90,752	12,016	9,486

INDUSTRIAL DEPARTMENT.

1939	..	..	2,491,742	111,862	45	(a) 6,490	2	..
1954	..	..	3,826,745	296,994	78	14,583	..	..
1955	..	..	3,765,851	307,370	82	14,901	..	..
1956	..	..	3,701,540	315,440	85	15,132	..	..
1957	..	..	3,615,271	322,516	89	15,334	..	..
1958	..	..	3,530,826	328,626	92	15,493	..	..

(a) Annual premium income.

4. New Policies issued in Australia.—In the following table, details are given of new policies issued in each State and the Australian Capital Territory during 1958 for each class of business:—

LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1958.

LIFE ASSURANCE: NEW POLICIES ISSUED IN 1931								
State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.			
	Number of Policies.	Sum Assured. (£'000.)	Premiums.		Number of Policies.	Annuities per Annum. (£'000.)	Premiums.	
			Single. (£'000.)	Annual. (£'000.)			Single. (£'000.)	Annual. (£'000.)

ORDINARY DEPARTMENT.

New South Wales	..	112,822	148,887	163	4,595	209	317	109	91
Victoria	..	84,686	156,501	168	4,351	539	845	108	267
Queensland(b)	..	53,960	68,981	235	1,896	49	13	24	3
South Australia(c)	..	31,037	44,313	34	1,345	40	13	43	2
Western Australia	..	23,219	27,651	28	888	40	7	32	1
Tasmania	..	11,963	17,277	4	492	15	16	8	4
Australian Capital Territory	..	4,582	36,084	128	477	33	253	31	41
Australia(b)	..	322,269	499,694	760	14,044	925	1,464	355	409

INDUSTRIAL DEPARTMENT.

New South Wales	..	83,136	13,629	..	648	..	..	..	..
Victoria	..	53,457	8,978	..	418	..	..	..	..
Queensland(b)	..	24,505	3,933	..	185	..	..	..	..
South Australia(c)	..	20,849	3,293	..	153	..	..	..	..
Western Australia	..	12,814	2,110	..	97	..	..	..	..
Tasmania	..	4,842	879	..	40	..	..	..	..
Australian Capital Territory	..	1,351	249	..	12	..	..	..	..
Australia(b)	..	200,954	33,071	..	1,553	..	..	..	..

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

New policies issued in Australia during each of the years 1939 and 1954 to 1958 were as shown in the following table:—

LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies.				Annuity Policies.				
	Number of Policies.	Sum Assured. (£'000.)	Premiums.		Number of Policies.	Annuities per Annum. (£'000.)	Premiums.		
			Single. (£'000.)	Annual. (£'000.)			Single. (£'000.)	Annual. (£'000.)	
ORDINARY DEPARTMENT.									
1939	..	142,157	48,263	(a)	(a)	420	87	(a)	(a)
1954	..	297,468	278,504	489	9,773	1,389	939	639	232
1955	..	314,545	335,473	541	11,003	1,619	1,599	773	386
1956	..	316,620	372,436	625	11,646	1,592	1,851	793	392
1957	..	317,735	445,470	649	13,521	1,512	1,250	869	288
1958	..	322,269	499,694	760	14,044	925	1,464	355	409
INDUSTRIAL DEPARTMENT.									
1939	..	385,498	18,542	(a)	(a)	..	..	..	..
1954	..	236,936	33,407	..	1,541	..	..	..	..
1955	..	216,896	33,175	..	1,532	..	..	..	..
1956	..	211,411	32,977	..	1,558	..	..	..	..
1957	..	209,733	33,459	..	1,580	..	..	..	..
1958	..	200,954	33,071	..	1,553	..	..	..	..

(a) Not available.

5. Policies Matured or Otherwise Discontinued in Australia.—The volume of business discontinued from various causes in each year is always large. In the following table, details are given of ordinary and industrial life assurance policies matured or otherwise discontinued in each State and the Australian Capital Territory during the year 1958.

LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA, 1958.

IN AUSTRALIA, 1958.

State or Territory.(a)	Assurance and Endowment.			Annuity Policies.		
	Number of Policies.	Sum Assured. (£'000.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Premiums. (£'000.)
ORDINARY DEPARTMENT.						
New South Wales	74,443	60,547	2,216	220	146	56
Victoria	52,008	48,184	1,619	217	354	126
Queensland(b)	30,879	23,078	713	57	8	2
South Australia(c)	17,609	14,334	534	35	8	2
Western Australia	13,334	10,103	376	7	3	..
Tasmania	7,752	6,208	211	37	7	2
Australian Capital Territory	— 5,055	— 2,752	— 42	1,644	17	9
Australia(b)	190,970	159,702	5,627	2,217	543	197
INDUSTRIAL DEPARTMENT.						
New South Wales	112,869	11,039	568	..	..	..
Victoria	82,508	7,332	388	..	..	..
Queensland(b)	32,743	3,181	164	..	..	..
South Australia(c)	28,538	2,528	131	..	..	..
Western Australia	19,089	1,875	94	..	..	..
Tasmania	8,826	872	42	..	..	..
Australian Capital Territory	826	133	6	..	..	..
Australia(b)	285,399	26,960	1,393	..	..	..

(a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

NOTE.—Minus sign (—) indicates excess of transfers to registers or other adjustment to number and value of policies.

Policies matured or otherwise discontinued in Australia during each of the years 1939 and 1954 to 1958 were as shown in the following table.

LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

IN AUSTRALIA.									
Year.				Assurance and Endowment Policies.			Annuity Policies.		
				Number of Policies.	Sum Assured. (£'000.)	Annual Prem-iums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Prem-iums. (£'000.)
ORDINARY DEPARTMENT.									
1939	..	..	..	80,912	24,786	(a)	275	17	(a)
1954(b)	..	..	..	157,060	90,050	3,366	1,395	647	137
1955	..	..	..	164,151	105,883	4,045	1,449	668	228
1956	..	..	..	180,858	119,928	4,534	1,436	878	227
1957	..	..	..	191,520	135,344	4,852	5,498	857	(c)—308
1958	..	..	..	190,970	159,702	5,627	2,217	543	197
INDUSTRIAL DEPARTMENT.									
1939	..	..	..	262,096	12,132	(a)	..	..	..
1954(b)	..	..	..	290,959	22,007	1,190	..	..	..
1955(b)	..	..	..	277,790	22,799	1,214	..	..	..
1956	..	..	..	275,722	24,907	1,327	..	..	..
1957	..	..	..	296,002	26,383	1,378	..	..	..
1958	..	..	..	285,399	26,960	1,393	..	..	..

(a) Not available. (b) Includes policies in existence at beginning of year which were discontinued as a result of the winding up of two companies. (c) The negative amount shown is due to an adjustment to the annual premiums on certain annuities which in previous years were treated as single premiums.

The number of policies and sums assured, excluding annuities, discontinued during the years 1939 and 1954 to 1958 and the causes for discontinuance are given in the following table:—

LIFE ASSURANCE: POLICIES(a) MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA—CAUSE OF DISCONTINUANCE.

IN AUSTRALIA—CAUSE OF DISCONTINUANCE								
Year.				Death or Maturity.	Surrender.	Forfeiture.	Other.	Total.
ORDINARY DEPARTMENT: NUMBER OF POLICIES.								
1939	..	..	..	22,529	18,409	39,382	— 128	80,192
1954	..	..	..	45,386	62,238	41,287	(b) 8,149	157,060
1955	..	..	..	48,224	67,929	42,941	5,057	164,151
1956	..	..	..	52,876	72,659	44,073	11,250	180,858
1957	..	..	..	55,923	77,937	42,981	14,679	191,520
1958	..	..	..	58,914	85,211	42,805	4,040	190,970
ORDINARY DEPARTMENT: SUM ASSURED. (£'000.)								
1939	..	..	..	5,612	5,863	13,414	— 103	24,786
1954	..	..	..	14,904	41,344	28,770	(b) 5,032	90,050
1955	..	..	..	16,012	50,065	35,467	4,339	105,883
1956	..	..	..	18,042	53,378	37,766	10,742	119,928
1957	..	..	..	19,475	60,231	41,868	13,770	135,344
1958	..	..	..	21,689	69,721	49,444	18,848	159,702
INDUSTRIAL DEPARTMENT: NUMBER OF POLICIES.								
1939	..	..	..	73,585	33,766	154,328	417	262,096
1954	..	..	..	157,150	51,917	59,828	(b) 22,064	290,959
1955	..	..	..	167,060	54,895	54,922	(b) 913	277,790
1956	..	..	..	171,748	60,531	61,276	— 17,833	275,722
1957	..	..	..	174,327	66,940	54,612	123	296,002
1958	..	..	..	159,145	69,878	56,168	208	285,399
INDUSTRIAL DEPARTMENT: SUM ASSURED. (£'000.)								
1939	..	..	..	2,759	1,372	7,976	25	12,132
1954	..	..	..	6,849	5,877	8,484	(b) 797	22,007
1955	..	..	..	7,517	6,574	8,675	(b) 33	22,799
1956	..	..	..	7,944	7,828	9,994	— 859	24,907
1957	..	..	..	8,439	8,722	9,186	36	26,383
1958	..	..	..	8,006	9,416	9,478	60	26,960

(a) Excludes annuities.

(b) See note (b) to previous table.

NOTE.—Minus sign (—) indicates excess of transfers to registers or other adjustment to number and value of policies.

6. **Premiums and Claims, Australia.**—(i) *Premiums.* (a) *Ordinary Business.* Details of revenue from premiums in respect of the ordinary business of all offices doing business in Australia are shown in the following tables for each State and the Australian Capital Territory for the year 1958:—

ORDINARY LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1958.
(£'000.)

State or Territory.(a)	Assurance and Endowment Premiums.		Consideration for Annuities.		Total.
	Single Premiums.	Other Premiums.	Single Premiums.	Other Premiums.	
New South Wales	138	31,272	109	557	32,076
Victoria	125	27,404	108	1,816	29,453
Queensland(b)	165	12,518	24	25	12,732
South Australia(c)	29	8,921	43	24	9,017
Western Australia	19	5,996	33	23	6,071
Tasmania	4	3,068	8	66	3,146
Australian Capital Territory ..	128	2,339	30	511	3,008
Australia(b)	608	91,518	355	3,022	95,503

• (a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

(b) *Industrial Business.* Details of revenue from premiums in respect of the industrial business of all offices doing business in Australia are shown in the following table for each State and the Australian Capital Territory for the year 1958:—

INDUSTRIAL LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1958.
(£'000.)

State or Territory.(a)	Assurance and Endowment Premiums.		Total.
	Single Premiums.	Other Premiums.	
New South Wales	1	5,701	5,702
Victoria	3	4,699	4,702
Queensland (b) .. ..	..	1,858	1,858
South Australia(c) .. ..	..	1,501	1,501
Western Australia	1	982	983
Tasmania .. ..	..	364	364
Australian Capital Territory ..	..	74	74
Australia(b)	5	15,179	15,184

(a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

(c) *Ordinary and Industrial Business.* The following table shows, for each of the years 1939 and 1954–58, the aggregate Australian income from premiums in respect of both ordinary and industrial business of all offices doing business in Australia:—

LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS.
(£'000.)

Year.	Ordinary Department.			Industrial Department.	Ordinary and Industrial Departments Combined.
	Assurance and Endowment Premiums.	Consideration for Annuities.	Total.		
1939	13,954	184	14,138	6,490	20,628
1954	59,761	2,178	61,939	14,285	76,224
1955	66,811	2,529	69,340	14,614	83,954
1956	74,413	2,700	77,113	15,002	92,115
1957	83,256	3,009	86,265	15,041	101,306
1958	92,126	3,377	95,503	15,184	110,687

(ii) *Claims, etc., Paid.* Details of the claims, etc., paid on policies in each State and the Australian Capital Territory during the year 1958 are shown in the following table:—

LIFE ASSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1958.
(£'000.)

(£'000.)

State or Territory.(a)	Claims.		Surrenders.	Annuities.	Cash Bonuses.	Total.
	Death or Disability.	Maturity.				
ORDINARY DEPARTMENT.						
New South Wales	4,871	4,488	3,738	183	53	13,333
Victoria	3,929	4,226	3,184	227	76	11,642
Queensland(b)	1,895	1,725	1,283	28	21	4,952
South Australia(c)	1,244	1,218	779	27	13	3,281
Western Australia	844	685	657	18	12	2,216
Tasmania	348	330	322	16	2	1,018
Australian Capital Territory	307	218	332	25	6	888
Australia(b)	13,438	12,890	10,295	524	183	37,330

INDUSTRIAL DEPARTMENT.

New South Wales	346	3,030	675	..	..	4,051
Victoria	291	2,460	478	..	..	3,229
Queensland(b)	105	899	201	..	..	1,205
South Australia(c)	89	778	143	..	..	1,010
Western Australia	57	464	111	..	..	632
Tasmania	20	248	48	..	..	316
Australian Capital Territory	2	17	8	..	..	27
Australia(b)	910	7,896	1,664	..	..	10,470

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

In the following table details are given of claims, etc., paid on policies in Australia for each of the years 1939 and 1954 to 1958:—

LIFE ASSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA.
(£'000.)

Year.				Claims.	Surrenders.	Annuities	Cash Bonuses.	Total.
ORDINARY DEPARTMENT.								
1939	..	..	..	7,935	1,843	220	260	10,258
1954	..	..	..	18,854	4,938	404	129	24,325
1955	..	..	..	20,105	6,109	430	218	26,862
1956	..	..	..	22,436	7,123	472	180	30,211
1957	..	..	..	24,187	8,825	493	135	33,640
1958	..	..	..	26,328	10,295	524	183	37,330
INDUSTRIAL DEPARTMENT.								
1939	..	..	..	3,132	499	..	..	3,631
1954	..	..	..	7,527	972	..	..	8,499
1955	..	..	..	8,311	1,056	..	..	9,367
1956	..	..	..	8,767	1,270	..	..	10,037
1957	..	..	..	9,361	1,498	..	..	10,859
1958	..	..	..	8,806	1,664	..	..	10,470

7. **Total Revenue and Expenditure.**—(i) *Total Revenue.* The following table shows particulars of the total life assurance revenue derived by life assurance offices from sources within and beyond Australia during each of the years 1939 and 1954 to 1958:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL REVENUE.
(£'000.)

Year				Assurance and Endowment Premiums.	Con-sideration for Annuities Granted.	Net Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
ORDINARY BUSINESS.								
1939	..	..	..	21,568	303	(a) 9,901	17	31,789
1954	..	..	..	80,701	2,824	24,176	676	108,377
1955	..	..	..	89,353	3,240	27,216	548	120,357
1956	..	..	..	98,689	3,488	30,886	416	133,479
1957	..	..	..	109,353	4,081	35,417	353	149,204
1958	..	..	..	121,802	4,693	41,429	530	168,454
INDUSTRIAL BUSINESS.								
1939	..	..	..	7,863	..	(a) 2,127	61	10,051
1954	..	..	..	16,402	..	4,630	219	21,251
1955	..	..	..	16,757	..	4,919	179	21,855
1956	..	..	..	17,174	..	5,274	28	22,476
1957	..	..	..	17,210	..	5,592	29	22,831
1958	..	..	..	17,336	..	6,072	12	23,420

(a) Gross, includes taxes thereon and rates.

(ii) *Total Expenditure.* The next table supplies details of the total expenditure, both within and beyond Australia, of life assurance offices during each of the years 1939 and 1954 to 1958:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL EXPENDITURE.
(£'000.)

Year.				Claims and Annuities paid.	Surrenders.	Cash Bonuses paid to Policy-holders.	Commission.	Transfers to Profit and Loss Account including Share-holders' Dividends.	All other Expenditure.	Total Expenditure.
ORDINARY BUSINESS.										
1939	..	..	..	12,320	2,668	380	1,483	125	(a) 3,867	20,843
1954	..	..	..	28,772	6,739	178	6,724	132	10,206	52,751
1955	..	..	..	30,398	8,187	280	7,419	173	10,843	57,300
1956	..	..	..	33,233	9,506	267	7,968	165	10,838	61,977
1957	..	..	..	35,944	11,463	238	9,160	223	12,741	69,769
1958	..	..	..	39,693	13,708	306	9,900	212	14,251	78,070
INDUSTRIAL BUSINESS.										
1939	..	..	..	3,763	576	..	1,619	72	(a) 1,278	7,308
1954	..	..	..	9,124	1,096	..	2,399	88	3,226	15,933
1955	..	..	..	9,994	1,185	..	2,406	28	3,066	16,679
1956	..	..	..	10,490	1,417	..	2,515	65	3,067	17,554
1957	..	..	..	11,218	1,648	..	2,538	78	3,436	18,918
1958	..	..	..	10,556	1,830	..	2,549	61	3,670	18,666

(a) Includes other expenses of management, licence fees, rates and taxes, etc.

8. **Liabilities and Assets.**—(i) *General.* The liabilities of the Australian offices consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. Separate details of liabilities and assets in respect of Australian business are not available.

(ii) *Total Liabilities and Assets.* In the two tables which follow, the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life assurance of the two State Government offices, all business of the Provident Life Assurance Co. Ltd. (incorporated in New Zealand) and the Australian business only of the other eight overseas companies operating in Australia. For various reasons, several offices do not attempt the dissection of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to the ordinary and industrial branches combined. Details of the total liabilities of life assurance offices for the year 1958 are given in the following table:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL LIABILITIES, 1958
(£'000.)

Item.	Life Assurance Business.	Other Classes of Business.	Total Liabilities.
<i>Shareholders' Capital—</i>			
Authorized .. .. .	..	5,778	5,778
Less Unissued .. .. .	..	2,895	2,895
<i>Subscribed Capital</i> .. .. .	..	2,883	2,883
<i>Paid-up—</i>			
In Money .. .. .	..	2,519	2,519
Otherwise than in Money .. .. .	..	79	79
<i>Total</i> .. .. .	..	2,598	2,598
<i>Life Assurance Statutory Funds—</i>			
Ordinary Department	951,889	..	951,889
Industrial Department	137,727	..	137,727
<i>Total</i>	1,089,616	..	1,089,616
<i>Funds in respect of Other Classes of Business</i> .. .. .	..	2,218	2,218
General Reserves	19,600	2,146	21,746
Profit and Loss Account Balance .. .. .	..	252	252
<i>Total, Shareholders' Capital, Assurance Funds and Reserves</i>	1,109,216	7,214	1,116,430
<i>Other Liabilities—</i>			
Deposits	6,016	4,266	10,282
Staff Provident and Superannuation Funds	810	358	1,168
Claims admitted or intimated but not paid	11,984	327	12,311
Annuities due but not paid	9	..	9
Premiums Paid in Advance and in Suspense	1,118	15	1,133
Sundry Creditors	3,937	421	4,358
Bank Overdraft	3,736	615	4,351
Reserves and Provisions for Taxation	6,197	192	6,389
All Other Liabilities	733	81	814
Total Liabilities	1,143,756	13,489	1,157,245

The following table furnishes details of the total assets of life assurance offices for the year 1958.

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL ASSETS, 1958.
(£'000.)

Item.	Life Assurance Business.	Other Classes of Business.	Total.	Amount of Total Assets held in Australia.
<i>Fixed Assets—</i>				
Freehold and Leasehold property, office premises	56,240	661	56,901	43,670
Furniture, etc.	1,283	79	1,362	1,069
<i>Total Fixed Assets</i>	<i>57,523</i>	<i>740</i>	<i>58,263</i>	<i>44,739</i>
<i>Loans—</i>				
On Mortgage	387,867	174	388,041	288,058
On Policies of the Company including Advances of Premiums	50,379	..	50,379	37,403
Other Loans	29,597	714	30,311	30,088
<i>Total Loans</i>	<i>467,843</i>	<i>888</i>	<i>468,731</i>	<i>355,549</i>
<i>Investments—</i>				
Government Securities—				
Australia	228,844	6,495	235,339	221,692
Other	59,417	88	59,505	..
Securities of Local and Semi-Governmental Bodies	171,458	418	171,876	128,979
Other Investments	139,976	3,415	143,391	117,824
<i>Total Investments</i>	<i>599,695</i>	<i>10,416</i>	<i>610,111</i>	<i>468,495</i>
Cash on Deposit, Current Account and in hand	1,203	190	1,393	1,097
Other Assets	17,492	1,255	18,747	14,523
<i>Total Assets</i>	<i>1,143,756</i>	<i>13,489</i>	<i>1,157,245</i>	<i>884,403</i>

(iii) *Assets held in Australia.* Details of assets held in Australia for the years 1939 and 1954 to 1958 are set out in the following table:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE(a): ASSETS HELD IN AUSTRALIA.
(£'000.)

Particulars.	1939. (b)	1954.	1955.	1956.	1957.	1958.
Landed and house property ..	12,823	18,060	22,345	30,290	39,276	43,670
Government and municipal securities	115,712	320,754	320,471	326,323	338,520	350,671
Other investments	6,700	58,173	71,756	80,961	92,561	117,824
Loans on mortgage	61,720	165,555	197,710	230,688	261,011	288,058
Loans on companies' policies ..	22,445	23,096	25,661	29,315	32,880	37,403
Other loans	(c)	22,085	23,923	27,663	29,412	30,088
All other assets	8,116	12,609	13,958	14,247	15,089	16,689
<i>Total Assets held in Australia</i>	<i>227,516</i>	<i>620,332</i>	<i>675,824</i>	<i>739,487</i>	<i>808,749</i>	<i>884,403</i>

(a) Life assurance and other classes of business.
other investments.

(b) Australian assets.

(c) Included with

9. *Loans.*—In the following table, details are given of new loans granted by life assurance companies during each of the years ended 31st December, 1955 to 1959. The information has been compiled from monthly returns furnished by each company. New loans granted by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

LIFE ASSURANCE COMPANIES: NEW LOANS GRANTED.
(£'000.)

Particulars.	1955.	1956.	1957.	1958.	1959.
CLASS OF SECURITY.					
Mortgage of Real Estate ..	50,081	47,707	48,969	53,953	58,900
Companies' Policies ..	4,793	5,903	6,334	7,470	7,925
Other	3,415	4,250	4,431	5,399	6,777
Total	58,289	57,860	59,734	66,822	73,602

STATE OR TERRITORY.(a)					
New South Wales	25,884	22,542	26,454	30,096	33,674
Victoria	17,534	20,121	17,115	17,699	20,516
Queensland(b)	3,400	4,548	4,696	6,653	7,305
South Australia(c)	4,800	4,698	5,734	6,047	5,630
Western Australia	4,581	3,550	3,318	3,556	3,570
Tasmania	2,018	2,324	2,334	2,576	2,767
Australian Capital Territory	72	77	93	195	140
Total	58,289	57,860	59,734	66,822	73,602

(a) State or Territory of location of mortgage, registration of policy, or residence of borrower.
 (b) Includes Territories of Papua and New Guinea. (c) Includes Northern Territory.

§ 3. Fire, Marine and General Insurance.

1. **General.**—The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted in accordance therewith.

(a) Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from "earned premium income" appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than "earned premium income" appropriate to the year. The converse applies when business is declining.

(b) Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.

(c) Contributions to Fire Brigades, Commission and Agents' Charges, and Expenses of Management represent mainly charges paid during the year.

(d) Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The tables contain selected items of statistics and the information shown is not suitable for the construction of a "profit and loss" statement or "revenue" account.

In cases where the business is underwritten in one State and the risk is situated in another, the business is included in the State in which the policy was issued.

During 1958–59, revenue from premiums amounted to £165,245,000 and that from net interest on investments, etc., to £6,799,000, a total of £172,044,000. Expenditure on claims amounted to £97,139,000, contributions to fire brigades £4,437,000, commission and agents' charges £16,501,000, expenses of management £27,135,000, and taxation £6,450,000, a total of £151,662,000.

2. **States.**—The following table shows, for each State, the aggregate premium income less reinsurances and returns, and claims or losses less amounts recoverable for all classes of insurance other than life for the years 1938–39 and 1954–55 to 1958–59.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—STATES.
(£'000.)

State.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.						
New South Wales(a)	6,943	42,696	48,726	53,050	59,875	65,371
Victoria	4,505	33,946	39,110	45,583	50,764	53,961
Queensland	2,327	13,801	15,377	16,702	19,106	19,291
South Australia	1,245	9,115	10,244	11,836	12,209	12,990
Western Australia	1,373	6,854	7,362	7,585	8,532	9,340
Tasmania	457	2,813	3,151	3,355	3,989	4,292
Total	16,850	109,225	123,970	138,111	154,475	165,245

GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.						
New South Wales(a)	3,842	23,302	28,888	32,753	35,390	39,753
Victoria	2,194	20,303	23,081	26,542	28,603	30,854
Queensland	1,071	8,234	8,717	10,707	11,110	12,381
South Australia	487	6,402	5,441	6,208	5,898	6,639
Western Australia	731	3,671	4,064	4,678	4,618	5,399
Tasmania	204	1,372	1,655	1,644	2,017	2,113
Total	8,529	63,284	71,846	82,532	87,636	97,139

(a) From 1947-48, excludes Workers' Compensation Insurance in coal-mining industry in New South Wales.

3. **Classes of Insurance.**—The following statement shows premiums and claims in respect of the principal classes of risks, for the years 1938-39 and 1954-55 to 1958-59:—

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—
PRINCIPAL CLASSES OF RISK, AUSTRALIA.
(£'000.)

Class of Risk.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.						
Fire	5,597	23,603	25,807	27,919	29,854	30,642
Workers' Compensation(a) ..	4,361	22,133	25,660	28,976	33,772	34,805
Motor Vehicle—						
Compulsory Third Party ..	3,848	{ 10,480	12,789	14,772	16,064	17,166
Other						
Marine	1,018	6,637	7,179	6,916	7,292	7,646
Personal Accident	554	2,911	3,391	3,990	4,733	5,563
All other	1,472	14,052	16,485	17,687	20,633	25,596
Total	16,850	109,225	123,970	138,111	154,475	165,245

GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.						
Fire	2,223	6,859	7,191	9,037	9,406	9,370
Workers' Compensation(a) ..	2,972	18,641	20,383	23,515	24,473	27,391
Motor Vehicle—						
Compulsory Third Party ..	2,324	{ 10,538	12,131	13,710	14,105	17,252
Other						
Marine	243	2,706	2,878	3,130	3,258	2,999
Personal Accident	264	1,075	1,295	1,700	2,120	2,427
All other	503	6,226	6,044	5,988	6,815	9,295
Total	8,529	63,284	71,846	82,532	87,636	97,139

(a) From 1947-48 excludes Workers' Compensation in coal-mining industry in New South Wales.

E. RETAIL HIRE PURCHASE OPERATIONS OF FINANCE BUSINESSES.

1. **General.**—Information relating to hire purchase operations in Australia is given in the following tables. Information in more detail may be found in the annual bulletin—*Finance, Part I.—Public and Private Finance* and in monthly bulletins relating to hire purchase operations.

The statistics relate to businesses which finance the retail sale of goods, but do not retail goods themselves. These businesses cover public and private companies, partnerships, and other types of finance businesses. Businesses which finance hire purchase exclusively for their own employees are not included. All types of goods sold to final purchasers are included whether producer goods (such as plant and machinery) or consumer goods.

2. **New Retail Agreements 1958-59.**—Details of new retail agreements made during the year ended 30th June, 1959, are given in the following table.

HIRE PURCHASE FINANCE COMPANIES: NEW RETAIL AGREEMENTS—STATES.**YEAR ENDED 30th JUNE, 1959.**

State.	Number of Agreements.				Value of Goods. (£'000.)(a)				Amount Financed. (£'000.)(b)			
	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.
N.S.W.(f) ..	142,602	11,193	321,997	475,792	105,674	8,409	37,098	151,181	65,836	5,447	30,635	101,918
Vic. ..	104,051	9,079	183,455	296,585	78,358	5,549	22,902	106,809	49,477	3,548	18,747	71,772
Qld. ..	64,315	5,053	164,423	233,791	44,318	3,956	10,258	58,532	26,826	2,482	8,334	37,642
S.A.(g) ..	42,058	2,917	97,016	141,991	28,118	1,828	7,612	37,558	17,245	1,166	6,453	24,864
W.A. ..	26,998	2,145	51,842	80,985	18,216	1,782	4,175	24,173	11,264	1,167	3,347	15,778
Tas. ..	15,301	769	17,530	33,600	10,480	488	1,366	12,334	6,342	302	1,055	7,699
Australia ..	395,325	31,156	836,263	1,262,744	285,164	22,012	83,411	390,587	176,990	14,112	68,571	259,673

(a) Value at net cash or list price (excluding hiring charges and insurance). (b) Excludes hiring charges and insurance. (c) Includes new and used motor cars, motor cycles, commercial vehicles, tractors, caravans, motor parts and accessories. (d) Includes farm machinery and implements, earthmoving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc. (e) Includes furniture and furnishings, domestic refrigerators, electrical goods, television and accessories, radios, musical instruments, bicycles and other household and personal goods. (f) Includes the Australian Capital Territory. (g) Includes the Northern Territory.

3. **Balances outstanding on Retail Agreements at 30th June.**—Details of the balances outstanding on retail agreements at 30th June, 1955 to 1959, are given below:—

HIRE PURCHASE FINANCE COMPANIES: BALANCES OUTSTANDING ON RETAIL AGREEMENTS—STATES.
(Including Hiring Charges and Insurance.)
(£'000.)

As at 30th June—	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W. Aust.	Tas.	Aust.
1955	68,952	44,830	29,240	18,633	14,151	7,012	182,818
1956	79,100	56,369	32,266	21,618	15,388	8,163	212,904
1957	85,480	64,255	36,934	25,342	15,488	9,023	236,522
1958	111,872	84,652	42,483	28,688	19,052	9,928	296,675
1959	141,028	100,193	49,451	32,802	20,779	10,696	354,949

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

F. CAPITAL RAISINGS BY AUSTRALIAN COMPANIES.

1. **General.**—Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin—*Finance Part I.—Public and Private Finance* and in quarterly bulletins dealing with capital raisings.

The statistics (the collection of which commenced in July, 1954) relate to capital raised by companies through issues of shares, and in the case of listed companies through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included, and, in the case of unlisted companies, capital raised through loans not secured over any of the assets of the company is excluded.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits includes, in addition to capital raised by Australian companies, capital raised in this way from Australian sources by overseas public companies through their Australian offices.

The following are explanatory notes relating to some of the items shown in the tables:—
New Money. This is the net amount of cash transferred from the investing public to the companies. For this purpose, the investing public includes banks and life insurance companies (except when subscribing to issues by associated companies) and government and private superannuation funds, but excludes other Government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow, the amount of new money is obtained by deducting from the total cash raised the "amount not involving a net transfer of funds from the investing public."

Amounts not involving new money. These amounts include cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the "investing public". Also included are amounts which, although subscribed by the "investing public" (i.e. subscribers other than "associated companies"), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc., in associated and subsidiary companies. The funds used in this way are thus returned to another section of the "investing public", and do not represent a net transfer of cash from the "investing public" to the companies. (Besides these purchases of existing shares, etc., from individuals, purchases of existing shares, etc., from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

2. Listed Companies (a).—Details of New Capital raised through issues of shares, debentures, or registered notes, or accepting deposits are given in the following table for each of the years 1954–55 to 1958–59:—

LISTED AUSTRALIAN COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES, DEBENTURES, OR REGISTERED NOTES, ETC.(b), OR ACCEPTING DEPOSITS(c).

(£ million.)

Year.	Share Capital.						Debentures, Registered Notes and Deposits.		
	Value of Issues Commenced.	Non-Cash Issues Commenced. (d)	Cash Issues Commenced	Cash Raised During Period. (e)	Amounts Not Involving New Money.	New Money.	Total Amount Raised. (f)	Amounts Not Involving New Money. (f)	New Money.
1954–55 ..	113.5	40.1	73.4	68.1	8.4	59.7	63.9	36.4	27.5
1955–56 ..	104.7	35.7	69.0	68.0	8.8	59.2	119.8	69.8	50.0
1956–57 ..	110.4	57.7	52.7	51.0	7.3	43.7	143.1	92.1	51.0
1957–58 ..	107.1	58.2	48.9	50.3	15.1	35.2	209.1	130.4	78.7
1958–59 ..	100.8	42.3	58.5	57.7	9.0	48.7	308.9	168.8	140.1

(a) Includes companies incorporated in the Australian Territories. (b) Includes convertible notes. (c) Deposits accepted by banks, life assurance companies, pastoral companies, building societies and loans to authorized dealers in the short term money market are not included. (d) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (e) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years. (f) Includes conversions, renewals, etc.

3. **Unlisted Companies.**—Details of new capital raised by unlisted companies through issues of shares and loans secured by charges over the companies' entire assets are given in the following table for each of the years 1954-55 to 1958-59.

UNLISTED COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS.

(£ million.)

Year.	Share Capital.						Loans secured by charges over the Companies' Entire Assets.		
	Value of Issues Commenced.	Non-Cash Issues Commenced. (b)	Cash Issues Commenced.	Cash Raised During Period. (c)	Amounts Not Involving New Money.	New Money.	Total Amount Raised. (d)	Amounts Not Involving New Money. (d)	New Money.
1954-55 ..	132.6	34.2	98.4	88.1	56.3	31.8	7.0	2.5	4.5
1955-56 ..	144.8	54.7	90.1	86.2	55.9	30.3	7.7	1.9	5.8
1956-57 ..	131.1	58.1	73.0	69.4	41.8	27.6	6.6	1.9	4.7
1957-58 ..	151.2	81.2	70.0	64.8	43.7	21.1	8.7	4.4	4.3
1958-59 ..	175.1	94.6	80.5	70.0	51.9	18.1	18.8	6.3	12.5

(a) Excludes companies incorporated in the Northern Territory and Australian External Territories.

(b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years.

(d) Includes conversions, renewals, etc.

4. **Listed and Unlisted Companies.**—A summary of new money raised by listed and unlisted companies during each of the years 1954-55 to 1958-59 as shown in the preceding tables is given below.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED.

(£ million.)

Year.	Listed Companies.			Unlisted Companies.			Grand Total.
	Share Capital.	Debentures, Registered Notes and Deposits, etc.	Total.	Share Capital.	Loans Secured by Charges over the Companies' Entire Assets.	Total.	
1954-55 ..	59.7	27.5	87.2	31.8	4.5	36.3	123.5
1955-56 ..	59.2	50.0	109.2	30.3	5.8	36.1	145.3
1956-57 ..	43.7	51.0	94.7	27.6	4.7	32.3	127.0
1957-58 ..	35.2	78.7	113.9	21.1	4.3	25.4	139.3
1958-59 ..	48.7	140.1	188.8	18.1	12.5	30.6	219.4

G. SHORT TERM MONEY MARKET.

1. **General.**—For some years prior to 1959, leading stockbrokers had been actively engaged in the acceptance of short term funds against the security of Government securities but their operations were limited by the absence of suitable short term securities and their liquidity requirements.

In February, 1959, the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorized dealers in the short term money market.

The form of organization so far developed consists of several companies authorized to act as dealers in the market. These dealers accept loans overnight, at call or for fixed periods in amounts of at least £25,000 and invest the funds in "money market securities" which have been defined as Commonwealth Government securities with currencies not exceeding three years.

Dealers are required to provide for a minimum capitalization and, in addition, to lodge with the Bank part of their capital in the form of money market securities as general backing for their operations. These lodgments which are referred to as "margins" are required to be equivalent on market values to at least:—

- (a) One per cent. of the total holdings by the dealer of securities maturing in one year;
- (b) Two per cent. of the total holding by the dealer of securities maturing within one to two years; and
- (c) Four per cent. of the total holding by the dealer of securities maturing within two to three years.

The Bank approves for each dealer the maximum portfolio of money market securities which may be carried and establishes a line of credit in favour of the dealer to the extent of that approved maximum portfolio. Under the line of credit, which is subject to renewal from time to time, the dealer may borrow in the last resort from the Bank against lodgment of security.

2. **Selected Assets and Liabilities of Authorized Dealers and Rates of Interest on Loans Accepted.**—In the following table, details of selected assets and liabilities of authorized dealers and the interest rates on loans accepted by dealers are given for each month March to December, 1959:—

SHORT TERM MONEY MARKET.

SELECTED ASSETS AND LIABILITIES OF AUTHORIZED DEALERS.

Period.	Liabilities to Clients.			Holdings of Common- wealth Government Securities (at face value).	Interest Rates on Loans accepted during Month.	
	Cheque- paying Banks.	Other Clients.	Total.		Minimum Per cent. Per annum.	Maximum Per cent. Per annum.
Average of weekly Figures—£ million.						
1959—						
March ..	21.2	12.3	33.5	34.3	2.75	3.75
April ..	28.1	15.3	43.4	44.3	2.75	3.39
May.. ..	33.2	15.9	49.1	50.2	2.88	3.56
June.. ..	28.3	19.8	48.1	50.4	2.94	3.50
July ..	29.1	23.4	52.5	53.5	2.75	3.50
August ..	29.9	26.1	56.0	56.9	2.81	3.25
September ..	31.8	33.0	64.8	65.9	2.75	3.19
October ..	34.2	38.3	72.5	73.9	2.63	3.19
November ..	32.9	42.4	75.3	76.9	2.50	3.19
December ..	31.2	43.4	74.6	76.9	2.50	3.25

H. FRIENDLY SOCIETIES.

1. **General.**—The total membership of friendly societies in Australia is just under 460,000 but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowance is made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

2. **Societies, Members and Revenue.**—The following table sets out the number of societies, members, etc., revenue and expenditure, and funds of registered societies for the year 1956-57. More detailed information is available in *Finance, Part I.—Public and Private Finance*, Bulletin No. 49.

FRIENDLY SOCIETIES(a): 1956-57.

Particulars.	New South Wales. (b)	Victoria. (c)	Queens- land.	South Aus- tralia.	Western Aus- tralia.	Tas- mania. (c)	Total.
	No.	No.	No.	No.	No.	No.	No.
Registered Societies	38	149	23	14	13	13	250
Branches	2,091	1,281	508	633	275	131	4,919
Benefit members at end of year ..	149,652	169,941	52,162	55,499	21,200	9,745	458,199
Average benefit members during year ..	153,829	171,128	52,725	56,357	21,575	12,400	468,014
Members who received sick pay ..	(d)	33,121	9,803	11,518	3,622	1,922	(d)
Total weeks sick pay granted ..	(d)	462,815	135,830	168,995	53,922	28,391	(d)
Average weeks per member sick ..	(d)	14.0	13.9	14.7	14.9	14.8	(d)
Deaths of benefit members ..	(d)	3,073	1,021	1,055	288	269	(d)
Proportion of deaths per 1,000 mem- bers (average)	(d)	18.0	19.4	18.7	13.3	21.7	(d)
Revenue—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Entrance fees, levies and members' contributions	2,091	1,640	454	676	412	34	5,307
Interest, dividends and rents ..	349	436	137	209	49	28	1,462
All other revenue	102	94		33	12	13	
Total	2,542	2,170	591	918	473	75	6,769
Expenditure—							
Sick pay	208	266	79	83	24	14	674
Medical attendance and medicine ..	1,308	807	235	304	318	6	2,978
Sums payable at death	143	74	52	53	18	20	360
Administration	491	410	144	156	58	17	1,276
All other expenditure	60	221	..	225	19	6	531
Total	2,210	1,778	510	821	437	63	5,819
Total Funds	8,571	10,384	3,277	4,630	1,441	692	28,995

(a) Excludes juvenile branches, dispensaries, medical institutes and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (b) Includes the Australian Capital Territory. (c) Year 1957. (d) Not available.

I. PROBATES AND LETTERS OF ADMINISTRATION.

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States, the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION.

Particulars.			New South Wales. 1957-58. (a)	Victoria. 1957.	Queensland. 1957-58.	South Australia. 1957.	Western Australia. 1957.	Tasmania. 1957. (b)
<i>Probates—</i>								
Estates ..	No.		20,524	(c)	1,764	3,101	2,003	1,050
Gross Value ..	£'000		(c)	(c)	19,776	21,069	10,946	7,112
Net Value ..	£'000		107,370	(c)	(c)	19,723	10,130	6,593
<i>Letters of Administration—</i>								
Estates ..	No.		(c)	(c)	290	908	321	234
Gross Value ..	£'000		(c)	(c)	829	1,732	921	731
Net Value ..	£'000		(c)	(c)	(c)	1,502	791	635
<i>Total—</i>								
Estates ..	No.		(c)	14,723	2,054	4,009	2,324	1,284
Gross Value ..	£'000		(c)	80,933	26,605	22,801	11,867	7,843
Net Value ..	£'000		(c)	77,152	(c)	21,225	10,921	7,227

(a) Total estates of deceased persons assessed for death duty. Taxation Department.

(c) Not available.

(b) Estates dealt with by the

J. LOTTERIES AND BETTING.

§ 1. Lotteries.

State Governments operate lotteries in New South Wales, Queensland and Western Australia. Tattersall Lotteries and Tasmanian Lotteries are operated under Government licences in Victoria and Tasmania respectively.

New South Wales State Lotteries are conducted in accordance with the New South Wales State Lotteries Act, 1930, and the first drawing took place on 20th August, 1931. Net profits of the lotteries, with the exception of the net profits of the Opera House lotteries introduced in November, 1957, are paid to the Consolidated Revenue Fund from which grants are made to hospitals. The net profits of the Opera House lotteries are paid to the Opera House Account.

Tattersall Lotteries, which were previously conducted in Tasmania, were transferred to Victoria in 1954 and the first drawing in Melbourne took place on 8th July, 1954. The Tattersall Consultations Act, 1953, provides that prizes in each consultation shall be not less than sixty per cent. of total subscriptions to that consultation, and that a duty equal to thirty-one per cent of subscriptions shall be paid into the Consolidated Revenue Fund from which an equivalent amount will be paid out into the Hospitals and Charities Fund and the Mental Hospitals Fund in such proportions as the Treasurer determines from time to time.

In Queensland, the Golden Casket Art Union commenced in 1916 with the specific object of augmenting the funds of the Queensland War Council. Subsequently, Anzac Cottages and Nurses Quarters Funds benefited until 1920 but since then net profits have been paid to the Department of Health and Home Affairs (Hospitals, Motherhood and Child Welfare Trust Fund) and used for the maintenance of hospitals, grants to institutions, and for motherhood and child welfare purposes. A stamp duty is imposed on tickets sold. The proceeds of this are paid to Consolidated Revenue Fund.

In Western Australia, lotteries are conducted by the Lotteries Commission under the Lotteries Control Act of 1932. Profits are paid by the Commission to hospitals and other charities.

In Tasmania, lotteries are subject to the provisions of the Racing and Gaming Act 1950-1952. With the transfer of Tattersall Lotteries from Hobart to Melbourne, Tasmanian Lotteries commenced operations under Government licence and the first drawing took place on 30th June, 1954. The stamp duty on tickets sold and the tax on prize money are paid into Consolidated Revenue.

Details of ticket sales, prizes allotted, and taxes paid and other net contributions to State Government revenues, relating to lotteries drawn during each of the years ended 30th June, 1955 to 1959, are given in the following table.

**LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID
AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES.**
(£'000.)

Year ended 30th June.	New South Wales.	Victoria.	Queensland.	Western Australia.	Tasmania.	Total.
TICKET SALES.						
1955	11,268	8,450	6,115	1,112	1,703	28,648
1956	11,728	8,850	6,045	1,112	3,875	31,610
1957	12,830	9,200	6,175	1,163	3,525	32,893
1958	14,150	8,950	6,725	1,150	1,427	32,402
1959	13,598	8,750	6,760	1,138	796	31,042
PRIZES ALLOTTED.						
1955	7,180	5,070	3,908	603	1,036	17,797
1956	7,472	5,310	3,863	605	2,359	19,609
1957	8,211	5,520	3,946	654	2,146	20,477
1958	9,087	5,370	4,285	640	868	20,250
1959	8,725	5,250	4,308	628	485	19,396
TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES.						
1955	3,689	2,620	1,836	364	496	9,005
1956	3,842	2,744	1,798	362	1,129	9,875
1957	4,184	2,852	1,822	353	1,027	10,238
1958	4,593	2,775	1,895	353	415	10,031
1959	4,856	2,713	1,902	352	232	10,055

§ 2. Betting.

Estimates of totalizator investments and investments with licensed bookmakers for the years ended 30th June, 1955 to 1959, are given in the following table:—

**TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED
BOOKMAKERS.**
(£'000.)

Year ended 30th June—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
TOTALIZATOR INVESTMENTS.(a)							
1955	13,101	9,442	2,713	2,332	2,912	981	31,481
1956	13,645	10,669	2,530	2,267	2,263	1,004	32,378
1957	13,213	11,573	2,361	2,172	2,177	976	32,472
1958	13,831	11,740	2,579	2,236	2,498	944	33,828
1959	14,340	11,532	2,771	2,014	2,018	823	33,498
INVESTMENTS WITH LICENSED BOOKMAKERS.(b)							
1955	112,876	45,000	(c)	26,721	(c)	10,828	(c)
1956	113,225	52,000	(c)	30,019	(d) 24,012	11,577	(c)
1957	113,170	52,715	(c)	29,932	25,564	11,505	(c)
1958	113,147	64,250	(c)	28,335	27,005	12,031	(c)
1959	100,201	62,150	(c)	26,366	24,385	11,103	(c)

(a) Estimated from taxes on totalizators. (b) Estimated from taxes on betting with licensed bookmakers. (c) Not available. (d) Eleven months ended 30th June, 1956.

K. GOVERNMENT, SEMI-GOVERNMENTAL AND PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES.

§ 1. Government and Semi-Governmental Pension and Superannuation Schemes.

The Commonwealth and all State Governments have established pension or superannuation schemes for their employees. These schemes are operated through funds to which both the Government and the employees make contributions. Employees of semi-governmental authorities are in some cases covered by the Commonwealth or State Government scheme and in other cases by a separate scheme of the authority.

In the following tables, aggregate details are given, for the years 1957-58 and 1958-59, of the receipts, expenditure, accumulated funds and number of contributors and pensioners of the Commonwealth and State Government and main semi-governmental schemes. The funds included are:—

- (a) *Commonwealth*.—The Superannuation Fund and Defence Forces Retirement Benefits Fund.
- (b) *New South Wales*.—State Superannuation Fund, Government Railways Superannuation Fund and Police Superannuation and Reward Fund.
- (c) *Victoria*.—The State Superannuation Fund, Police Superannuation Fund, Police Pensions Fund, Melbourne Harbour Trust Superannuation Account, Geelong Harbor Trust Superannuation Fund, Melbourne and Metropolitan Board of Works Superannuation Fund, State Electricity Commission Provident Fund, Gas and Fuel Corporation Superannuation Fund, Metropolitan Fire Brigades Board Superannuation Fund, Country Fire Authority Superannuation Fund, Port Phillip Pilots' Sick and Superannuation Fund, and Married Women Teachers' Pension Fund.
- (d) *Queensland*.—Public Service Superannuation Fund and Police Superannuation Fund.
- (e) *South Australia*.—South Australia Superannuation Fund, Police Pensions Fund and Public Service Superannuation Fund.
- (f) *Western Australia*.—The Superannuation Fund.
- (g) *Tasmania*.—Public Service Superannuation Fund (Old and New Funds), Police Provident Fund and State Teachers' Superannuation Fund.

GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES, 1957-58.

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Receipts—								
Contributions—								
Employees ..	7,358	4,208	3,264	387	912	410	439	16,978
Government ..	5,474	9,106	4,625	558	946	692	339	21,740
Interest ..	2,633	3,116	1,898	349	527	192	170	8,885
Other ..	21	7	49	5	6	1	7	96
Total ..	15,486	16,437	9,836	1,299	2,391	1,295	955	47,699
Expenditure—								
Pension Payments ..	6,562	7,590	4,623	476	1,201	763	403	21,618
Gratuities or Rewards ..	530	86	13	..	..	..	8	637
Refund of Contributions ..	1,268	624	83	102	83	43	63	2,266
Other ..	..	67	101	..	55	..	4	227
Total ..	8,360	8,367	4,820	578	1,339	806	478	24,748
Funds at end of Year ..	66,226	70,631	45,964	7,601	12,467	4,763	3,992	211,644
Contributors at end of Year—								
Males ..	No. 127,634	No. 90,589	No. 49,122	No. 11,616	No. 13,069	No. 7,974	No. 6,014	No. 336,593
Females ..	15,467	90,589	6,929	4,217	1,454	579	1,929	336,593
Total ..	143,101	90,589	56,051	15,833	14,523	8,553	7,943	336,593
Pensioners at end of Year—								
Males ..	10,417	..	9,010	1,119	2,930	2,431	916	..
Female ex-employees ..	969	..	1,186	297	471	199	184	..
Widows ..	6,521	25,684	6,291	307	2,357	1,473	551	76,069
Children ..	1,559	..	643	52	233	161	108	..
Total ..	19,466	25,684	17,130	1,775	5,991	4,264	1,759	76,069

For the details of the individual funds summarized above see *Finance, Part I, Public and Private Finance*, Bulletin No. 49 issued by this Bureau.

GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES, 1958-59.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
<i>Receipts—</i>								
Contributions—								
Employees ..	7,735	4,204	3,555	327	988	486	479	17,774
Government ..	5,873	9,757	4,991	492	1,073	838	393	23,417
Interest ..	3,067	3,650	2,192	290	598	225	194	10,216
Other ..	9	5	45	15	5	..	5	84
<i>Total ..</i>	<i>16,684</i>	<i>17,616</i>	<i>10,783</i>	<i>1,124</i>	<i>2,664</i>	<i>1,549</i>	<i>1,071</i>	<i>51,491</i>
<i>Expenditure—</i>								
Pension Payments ..	7,359	8,444	5,099	440	1,324	914	466	24,046
Gratuities or Rewards ..	326	86	8	..	..	..	7	427
Refund of Contributions ..	1,136	588	290	67	98	35	70	2,284
Other ..	..	66	124	..	62	..	6	258
<i>Total ..</i>	<i>8,821</i>	<i>9,184</i>	<i>5,521</i>	<i>507</i>	<i>1,484</i>	<i>949</i>	<i>549</i>	<i>27,015</i>
<i>Funds at end of Year ..</i>	<i>74,089</i>	<i>79,134</i>	<i>51,244</i>	<i>8,142</i>	<i>13,732</i>	<i>5,364</i>	<i>4,518</i>	<i>236,223</i>
<i>Contributors at end of Year—</i>								
Males ..	133,101	91,899	50,543	11,681	13,348	8,546	6,127	346,661
Females ..	15,916	7,307	4,008	1,551	633	2,000	..	..
<i>Total ..</i>	<i>149,018</i>	<i>91,899</i>	<i>57,850</i>	<i>15,689</i>	<i>14,899</i>	<i>9,179</i>	<i>8,127</i>	<i>346,661</i>
<i>Pensioners at end of Year—</i>								
Males ..	10,839	9,275	1,149	2,964	2,576	935	..	..
Female ex-employees ..	1,002	1,224	319	487	78	191	..	..
Widows ..	6,848	6,524	321	2,366	1,536	590	..	..
Children ..	1,665	630	54	222	163	117	..	..
<i>Total ..</i>	<i>20,354</i>	<i>26,072</i>	<i>17,653</i>	<i>1,843</i>	<i>6,039</i>	<i>4,353</i>	<i>1,833</i>	<i>78,147</i>

For details of the individual funds summarized above see *Finance, Part I, Public and Private Finance*, Bulletin No. 50 issued by this Bureau.

§ 2. Parliamentary Pension and Superannuation Schemes.

Pension and superannuation schemes have been established for members of the Commonwealth and State Parliaments. Details of these schemes, except for Tasmania, are given in pages 91 to 99 of Official Year Book No. 38. Details of the Tasmanian scheme, are given on page 72 of Official Year Book No. 44. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or States contribute. Details of the receipts, expenditure, funds and number of contributors and pensioners for the years 1957-58 and 1958-59 are given in the following table:—

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1957-58.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£	£
<i>Receipts—</i>								
Contributions—								
Members ..	42,997	19,342	15,468	7,328	5,068	6,230	7,633	104,066
Government ..	20,519	12,715	18,632	7,328	8,568	6,770	..	74,542
Interest ..	11,167	3,684	..	10,874	3,655	2,252	507	32,139
Other ..	..	..	..	..	..	..	..	..
<i>Total ..</i>	<i>74,693</i>	<i>35,741</i>	<i>34,100</i>	<i>25,530</i>	<i>17,291</i>	<i>15,252</i>	<i>8,140</i>	<i>210,747</i>
<i>Expenditure—</i>								
Pension Payments(a) ..	29,522	16,131	34,100	4,744	7,127	9,479	3,055	104,158
Refund of Contributions ..	1,641	935	..	6,641	99	..	718	10,034
Other ..	..	..	..	..	75	..	141	216
<i>Total ..</i>	<i>31,163</i>	<i>17,066</i>	<i>34,100</i>	<i>11,385</i>	<i>7,301</i>	<i>9,479</i>	<i>3,914</i>	<i>114,408</i>
<i>Funds at end of Year ..</i>	<i>293,660</i>	<i>95,940</i>	<i>..</i>	<i>251,384</i>	<i>92,644</i>	<i>50,490</i>	<i>15,379</i>	<i>799,497</i>
<i>Contributors at end of Year</i>	<i>No. 184</i>	<i>No. 97</i>	<i>No. 100</i>	<i>No. 71</i>	<i>No. 58</i>	<i>No. 80</i>	<i>No. 49</i>	<i>No. 639</i>
<i>Pensioners at end of Year—</i>								
Ex-members ..	25	21	(b)	20	8	34	5	(b)
Widows ..	20	17	(b)	..	9	..	..	(b)
<i>Total ..</i>	<i>45</i>	<i>38</i>	<i>(b)</i>	<i>20</i>	<i>17</i>	<i>34</i>	<i>5</i>	<i>(b)</i>

(a) Including lump sum payments.

(b) Not available.

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1958-59.

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£	£
<i>Receipts—</i>								
Contributions—								
Members ..	349,620	22,527	15,660	11,334	5,733	8,441	7,668	420,983
Government ..	165,771	14,749	28,576	11,036	11,733	8,840	1,216	241,921
Interest ..	56,842	4,722	..	12,079	4,237	2,372	685	80,937
Other ..	3,986	..	..	..	..	..	..	3,986
<i>Total ..</i>	<i>576,219</i>	<i>41,998</i>	<i>44,236</i>	<i>34,449</i>	<i>21,703</i>	<i>19,653</i>	<i>9,569</i>	<i>747,827</i>
<i>Expenditure—</i>								
Pension Payments(a) ..	236,027	18,195	44,236	5,456	9,204	10,671	5,660	329,449
Refund of Contributions	4,219	3,583	..	198	675	1,813	1,056	11,544
Other ..	..	..	..	..	75	..	131	206
<i>Total ..</i>	<i>240,246</i>	<i>21,778</i>	<i>44,236</i>	<i>5,654</i>	<i>9,954</i>	<i>12,484</i>	<i>6,847</i>	<i>341,199</i>
<i>Funds at end of Year ..</i>	<i>335,973</i>	<i>114,439</i>	<i>..</i>	<i>248,298</i>	<i>104,416</i>	<i>54,697</i>	<i>18,101</i>	<i>875,924</i>
<i>Contributors at end of Year</i>	<i>184</i>	<i>96</i>	<i>100</i>	<i>71</i>	<i>59</i>	<i>80</i>	<i>53</i>	<i>643</i>
<i>Pensioners at end of Year—</i>								
Ex-members ..	39	29	(b)	21	13	18	9	(b)
Widows ..	22	18	(b)	..	9	15	3	(b)
<i>Total ..</i>	<i>61</i>	<i>47</i>	<i>(b)</i>	<i>21</i>	<i>22</i>	<i>33</i>	<i>12</i>	<i>(b)</i>

(a) Including lump sum payments.

(b) Not available.

CHAPTER XXI.

PUBLIC FINANCE.

NOTE.—The subject of “Public Finance” is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement, the Commonwealth assumed the liability to bondholders for the States’ Debts existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of the Public Debts of the Commonwealth and the States. In view of this, it has been found convenient to deal with the Commonwealth and State Public Debt in a separate division.

The subject of income taxes is also dealt with in a separate division.

A. COMMONWEALTH FINANCE.

§ 1. General.

1. Financial Provisions of the Constitution.—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pp. 17–20 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Official Year Book and on pages 835–40 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The majority of the tables relating to Commonwealth Finance have been compiled from the annual Budget Papers as presented to Parliament by the Treasurer of the Commonwealth.

2. Accounts of the Commonwealth Government.—The Commonwealth Government bases its accounts upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund.

§ 2. Commonwealth Consolidated Revenue Fund.

I. Nature of Fund.

1. Provisions of the Constitution.—The provisions made for the establishment of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in Sections 81 to 83 of the Constitution (*see* p. 17 of this Year Book).

2. Annual Results of Transactions.—In the early 1920’s, receipts and expenditure of the Consolidated Revenue Fund each ranged between £60 million and £70 million. After allowing for special appropriations amounting to one or two million pounds each year utilized for a variety of purposes, e.g., for debt redemption, naval construction, main roads, science and industry investigations, prospecting for oil and precious metals, civil aviation, etc., the receipts and expenditure of the Fund were balanced. In the later twenties and early thirties, when receipts and expenditure were each about £70 million or £80 million a year, there were annual deficits, which had accumulated to more than £17 million by the end of 1930–31.

In the years 1931–32 to 1938–39, receipts and expenditure each ranged from £70 million to £95 million and were in balance after allowing for special appropriations of up to £3.5 million a year for reduction of the accumulated deficit, non-recurring grants to the States, post office works and the provision of defence equipment. The amount applied towards reduction of the accumulated deficit was approximately £1.5 million and the balance of the deficit (approximately £15.7 million) was funded in 1937–38.

For most of the 1939–45 War years and thereafter, the Consolidated Revenue Fund was balanced, all available revenue after charging expenditure on ordinary services being used for defence, war and repatriation purposes.

During the years 1954–55 to 1958–59, the Fund was balanced after special payments of £70.1 million to the Debt Redemption Reserve Trust Account, and £61.6 million, £194.8 million, £104.4 million and £27.9 million to the Loan Consolidation and Investment Reserve Trust Account. The amounts so transferred were subsequently invested wholly or partly in special loans for State works requirements.

Receipts and expenditure increased from £95 million in 1938–39 to £377 million in 1944–45. By 1950–51, they had risen to £842 million and by 1954–55 to £1,067 million. Receipts and expenditure for 1958–59 were £1,296 million.

II.—Revenue.

1. **General.**—The following table shows details of the revenue from each source and the amount per head of population under each of the main headings during the years 1938–39 and 1954–55 to 1958–59. Taxation constitutes the main source of Commonwealth revenue, accounting for 87.4 per cent. in 1958–59.

COMMONWEALTH CONSOLIDATED REVENUE FUND: SOURCES OF REVENUE. (£'000.)

Source.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
<i>Taxation</i>	74,111	937,608	1,003,780	1,098,736	1,161,533	1,133,298
Per head of population ..	£10 13 9	£103 2 11	£107 15 0	£115 4 8	£119 3 8	£113 17 5
<i>Business Undertakings</i> ..	17,892	80,210	87,821	99,803	108,228	116,896
Per head of population ..	£2 11 9	£8 16 6	£9 8 7	£10 9 4	£11 2 1	£11 14 11
<i>Territories(a)</i>	356	2,419	2,249	2,513	2,845	3,189
Per head of population ..	£0 1 0	£0 5 4	£0 4 10	£0 5 3	£0 5 10	£0 6 5
<i>Other Revenue—</i>						
Interest, etc.	1,144	12,428	14,179	13,475	10,920	11,572
Coinage	128	725	199	693	223	149
Defence	151	4,106	3,820	3,763	5,776	6,185
Atomic Energy Commission	..	1,082	30	..	..	..
Civil Aviation	6	4,644	1,159	1,262	1,472	1,497
Health	18	86	94	90	105	92
Patents, Trade Marks, etc. ..	68	211	267	306	318	351
Bankruptcy	31	54	60	72	98	98
Commerce and Agriculture ..	..	..	..	..	..	..
Shipping and Transport ..	158	321	329	914	1,128	621
Net Profit on Australian Note Issue	767	5,516	7,866	10,054	12,592	10,935
Surplus Balances of Trust Accounts .. .. .	..	8,237	1,981	69,782	3,991	5,722
Australian Shipping Board	..	..	3,000	..	..	..
Transfer of Surplus Funds	..	..	..	..	..	..
Joint Coal Board—Repayment of Advances ..	..	3,550	2,488	750	1,100	143
Tea Importation Board—Repayment of Advance ..	..	..	2,000	..	..	..
Other	235	6,244	7,036	9,622	13,442	5,302
<i>Total</i>	2,706	47,204	44,508	110,783	51,165	42,667
Per head of population ..	£0 7 9	£5 3 10	£4 15 7	£11 12 5	£5 5 0	£4 5 9
<i>Grand Total</i>	95,065	1,067,441	1,138,358	1,311,835	1,323,771	1,296,050
Per head of population ..	£13 14 3	£117 8 7	£122 4 0	£137 11 8	£135 16 7	£130 4 6

(a) Excludes Railways. (b) Includes 1957–58, £1,314,000; 1958–59, £989,000 collections of Diesel Fuel Taxation subsequently refunded.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 823.

2. Taxation.—(i) *Total Collections.* (a) *Amount.* Collections under each heading for the years 1938–39 and 1954–55 to 1958–59 are shown below:—

COMMONWEALTH TAXATION: TOTAL NET COLLECTIONS.

(£'000.)

Heading.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Customs	31,161	101,254	87,508	68,597	71,717	71,671
Excise	16,472	143,149	168,264	217,440	231,334	236,254
Sales Tax	9,308	100,446	110,001	125,752	137,777	143,617
Land Tax	1,489	13	..	1	11	..
Pay-roll Tax .. ..	..	41,455	45,543	48,675	48,552	49,619
Income Taxes(a)	11,883	532,916	573,988	620,298	650,419	608,660
Estate Duty	1,915	9,614	10,120	12,712	13,774	13,309
Gift Duty .. ..	..	1,618	1,820	1,940	2,205	2,000
Entertainments Tax .. ..	..	—2	—1	..	..	..
Special Industry Taxes(b) ..	1,883	7,145	6,537	3,321	5,744	8,168
Total Taxation ..	74,111	937,608	1,003,780	1,098,736	1,161,533	1,133,298

(a) Includes Social Services Contribution, War-time (Company) Tax, Super Tax, Undistributed Profits Tax and Wool Deduction. (b) Used for purposes of industries concerned. The taxes are as follows:—Flour Tax, Wheat Tax, Wool Levy, Wool Contributory Charge, Wheat Export Charge, Miscellaneous Export Charges, Stevedoring Industry Charge, Tobacco Industry Charge and Gold Tax.

NOTE.—Minus sign (–) indicates an excess of refunds.

(b) *Proportion of each Class to Total Collections.* The following table shows the proportion of the total collections represented by returns from each class of taxation for the years 1938–39 and 1954–55 to 1958–59:—

COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO TOTAL NET COLLECTIONS.

(Per Cent.)

Heading.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Customs	42.1	10.8	8.7	6.2	6.2	6.3
Excise	22.3	15.3	16.8	19.8	20.0	20.9
Sales Tax	12.6	10.7	11.0	11.4	11.8	12.7
Land Tax	2.0	..	..	..	..	..
Pay-roll Tax .. ..	..	4.4	4.5	4.4	4.2	4.4
Income Taxes(a)	16.0	56.8	57.2	56.5	56.0	53.7
Estate Duty	2.6	1.0	1.0	1.2	1.2	1.2
Gift Duty .. ..	..	0.2	0.2	0.2	0.2	0.2
Special Industry Taxes(b) ..	2.4	0.8	0.6	0.3	0.4	0.6
Total Taxation ..	100.0	100.0	100.0	100.0	100.0	100.0

(a) See note (a) to previous table.

(b) See note (b) to previous table.

(ii) *Customs Revenue.* The classification of customs receipts by Tariff Divisions published in earlier issues of the Official Year Book was discontinued in 1955–56. In the following tables, customs duty receipts have been dissected according to the classification used for oversea trade statistics. For years prior to 1955–56, refunds and drawbacks were not classified by statistical classes and consequently details of gross receipts only are available for those years. The following table shows gross receipts for the years 1938–39 and 1954–55 to 1958–59 according to statistical classes.

COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF GROSS RECEIPTS.

(£'000.)

Classes.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Foodstuffs of animal origin	266	371	432	294	359	355
Foodstuffs of vegetable origin	1,069	1,558	1,346	1,445	1,611	1,601
Spirituous and alcoholic liquors	1,105	2,621	2,712	2,701	3,049	3,278
Tobacco, cigars and cigarettes	4,097	15,839	12,546	12,538	12,383	12,194
Animal substances (not foodstuffs)	17	7	18	9	7	6
Vegetable substances and fibres	74	209	256	263	252	220
Yarns, textiles and apparel	3,057	13,614	12,200	8,479	10,537	9,988
Oils, fats and waxes	9,956	23,137	19,336	12,131	10,518	11,537
Pigments, paints and varnishes	38	138	145	172	178	201
Rocks and minerals	40	45	34	30	48	36
Metals, metal manufactures and machinery ..	4,830	26,356	23,202	20,607	22,569	21,977
Rubber and leather and manufactures thereof ..	431	1,495	1,410	1,058	1,462	711
Wood and wicker, raw and manufactured ..	780	1,568	1,569	1,434	1,539	1,430
Earthenware, cement, china, glass and stone-ware ..	493	2,207	2,309	1,656	1,873	1,962
Pulp, paper and board, paper manufactures and stationery ..	491	1,452	1,246	874	980	1,044
Sporting material, toys, fancy goods, jewellery and timepieces ..	390	2,912	2,822	1,804	2,186	2,317
Optical, surgical and scientific instruments, photographic goods ..	239	1,155	1,242	1,104	1,153	1,216
Chemicals, pharmaceutical products, essential oils and fertilizers	377	1,228	1,227	1,177	1,444	1,450
Miscellaneous goods	652	2,140	2,532	2,045	2,359	2,439
Primage	4,109	8,681	7,734	4,670	2,740	2,299
Other receipts	132	586	608	563	562	754
<i>Total—Gross Customs Revenue</i>	<i>32,643</i>	<i>107,319</i>	<i>94,926</i>	<i>75,054</i>	<i>77,809</i>	<i>77,015</i>
Refunds and drawbacks	1,482	6,065	7,418	6,457	6,092	5,344
<i>Total—Net Customs Revenue</i>	<i>31,161</i>	<i>101,254</i>	<i>87,508</i>	<i>68,597</i>	<i>71,717</i>	<i>71,671</i>

The following table gives details of net customs receipts for the years 1955-56 to 1958-59:—

COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF NET RECEIPTS.

(£'000.)

Classes.	1955-56.	1956-57.	1957-58.	1958-59.
Foodstuffs of animal origin	418	281	347	336
Foodstuffs of vegetable origin	1,305	1,392	1,546	1,512
Spirituous and alcoholic liquors	2,711	2,697	3,047	3,274
Tobacco, cigars and cigarettes	12,516	12,526	12,375	12,190
Animal substances (not foodstuffs)	3	7	5	5
Vegetable substances and fibres	240	196	222	182
Yarns, textiles and apparel	11,660	8,303	10,284	9,800
Oils, fats and waxes	18,933	11,543	10,039	11,123
Pigments, paints and varnishes	105	152	160	179
Rocks and minerals	1	24	35	24
Metals, metal manufactures and machinery ..	18,149	16,169	18,389	18,348
Rubber and leather and manufactures thereof ..	1,294	990	1,291	620
Wood and wicker, raw and manufactured ..	1,533	1,413	1,510	1,398
Earthenware, cement, china, glass and stoneware ..	2,235	1,588	1,822	1,866
Pulp, paper and board, paper manufactures and stationery ..	1,166	748	848	940
Sporting materials, toys, fancy goods, jewellery and timepieces ..	2,792	1,779	2,165	2,297
Optical, surgical and scientific instruments, photographic goods ..	1,204	1,065	1,118	1,169
Chemicals, pharmaceutical products, essential oils and fertilizers	1,093	1,051	1,302	1,317
Miscellaneous goods	2,288	1,802	2,174	2,269
Primage	7,261	4,318	2,483	2,078
Other receipts	601	553	555	744
<i>Total</i>	<i>87,508</i>	<i>68,597</i>	<i>71,717</i>	<i>71,671</i>

(iii) *Excise Revenue.* Net excise receipts for the years 1938-39 and 1954-55 to 1958-59 were as follows:—

COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS.
(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Beer	7,289	76,362	85,315	103,516	105,997	105,286
Spirits	1,604	6,496	7,325	8,138	8,047	8,692
Tobacco	3,868	15,141	14,849	17,270	16,633	15,207
Cigars and cigarettes	2,419	29,030	36,516	47,916	51,366	55,824
Cigarette papers	531	1,007	896	910	862	811
Petrol	582	12,898	21,190	37,183	41,711	44,253
Diesel Fuel .. .. .	..	..	..	..	(a) 2,770	(a) 1,475
Matches	82	1,096	1,061	1,074	1,084	1,092
Playing cards	11	51	47	48	47	48
Coal .. .. .	..	600	566	599	590	578
Miscellaneous	86	468	499	786	2,227	2,988
Total	16,472	143,149	168,264	217,440	231,334	236,254

(a) Refunds of Diesel Fuel Taxation 1957-58, £1,314,000 and 1958-59, £989,000.

(iv) *Other Taxation.* (a) *General.* Taxes other than customs and excise and the various export charges are, in general, assessed and collected by the Commissioner of Taxation. The organization comprises a Head Office in Canberra, an office in each State assessing the returns of taxpayers whose interests are restricted to that State only, and a Central Office assessing taxpayers whose interests are in more than one State.

(b) *Sales Tax.* The sales tax was first imposed in August, 1930. The operation of the tax is controlled chiefly by a system of registration of taxpayers whereby all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

Since the inception of the tax, certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or those for use in primary production. The most recent exemptions were those granted from 4th September, 1957.

A general rate of tax is levied on all goods other than those specified in the schedules to the Sales Tax (Exemptions and Classifications) Act 1935-1959. These schedules set out details of goods exempt from sales tax and those subject to special rates. The general and special rates which operated from 8th September, 1949, were:—

Period.	General Rate.	Special Rates.
8th September, 1949, to 12th October, 1950	8½ per cent. ..	25 per cent.
13th October, 1950, to 26th September, 1951	8½ per cent. ..	10, 25 and 33½ per cent.
27th September, 1951, to 6th August, 1952	12½ per cent. ..	20, 25, 33½, 50 and 66⅔ per cent.
7th August, 1952, to 9th September, 1953	12½ per cent. ..	20, 33½ and 50 per cent.
10th September, 1953, to 18th August, 1954	12½ per cent. ..	16⅔ per cent.
19th August, 1954, to 14th March, 1956	12½ per cent. ..	10 and 16⅔ per cent.
15th March, 1956, to 3rd September, 1957	12½ per cent. ..	10, 16⅔, 25 and 30 per cent.
From 4th September, 1957	12½ per cent. ..	8½, 16⅔, 25 and 30 per cent.

For particulars of rates applicable from the inception of Sales Tax in August, 1930, to 7th September, 1949, see Official Year Book No. 37, page 617.

Particulars of the net amount of sales tax payable, and the sales of taxable and exempt goods in each State for 1958-59, are given in the following table. The figures relate to sales during the period 1st July to 30th June. The figures for sales tax payable differ from those for net collections shown on page 815 because the latter include some adjustments in respect of earlier tax years and include only tax payable on returns lodged during the year, which in general cover sales for the period June to May.

SALES TAX AND AMOUNT OF SALES, 1958-59.

(£'000.)

Particulars.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	Aust- ralia.
Net Sales on which Sales Tax was payable at—								
8½ per cent. ..	67,731	55,445	18,490	16,389	9,165	3,298	28	170,546
12½ per cent. ..	165,468	108,212	48,130	33,207	20,810	8,993	281	385,101
16½ per cent. ..	38,739	36,814	18,046	10,938	8,623	1,350	53	114,563
25 per cent. ..	41,882	26,177	6,648	5,573	2,772	909	16	83,977
30 per cent. ..	48,691	47,609	17,443	13,214	7,762	1,378	8	136,105
Total ..	362,511	274,257	108,757	79,321	49,132	15,928	386	890,292
Sales of Exempt Goods by Registered Persons..	861,735	633,255	284,646	176,530	130,745	62,148	2,968	2,152,027
Total Sales of Taxable and Exempt Goods ..	1,224,246	907,512	393,403	255,851	179,877	78,076	3,354	3,042,319
Sales Tax Payable ..	57,862	45,119	17,460	12,697	7,841	2,264	53	143,296

(a) Includes the Australian Capital Territory.

Sales of taxable and exempt goods and sales tax payable for Australia as a whole, are shown in the following table for the years 1938-39 and 1954-55 to 1958-59:—

SALES TAX AND AMOUNT OF SALES.

(£'000.)

Year.	Net Sales on which Sales Tax was Payable.	Sales of Exempt Goods by Registered Persons.	Total Sales of Taxable and Exempt Goods.	Sales Tax Payable.
1938-39	196,491	280,656	477,147	9,363
1954-55	766,940	1,699,342	2,466,282	101,427
1955-56	798,774	1,856,865	2,655,639	111,469
1956-57	781,250	2,016,828	2,798,078	127,649
1957-58	849,347	2,105,688	2,955,035	138,259
1958-59	890,292	2,152,027	3,042,319	143,296

In the foregoing tables, sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the Sales Tax (Exemptions and Classifications) Act 1935-1957. The figures shown do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e., goods sold by one registered taxpayer to another registered taxpayer) are excluded.

(c) *Land Tax.* Commonwealth Land Tax was levied annually from 1910-11 to 1951-52 on the unimproved value of land. It was abolished from 1st July, 1952. For rates of tax payable from 1942-43 to 1951-52, see Official Year Book No. 40, 1954, page 669.

(d) *Pay-roll Tax.* The Pay-roll Tax Act 1941 and the Pay-roll Tax Assessment Act 1941-1942 imposed a pay-roll tax of 2½ per cent. on all wages and salaries in excess of £20 a week paid by an employer after 30th June, 1941. Employers who are liable for tax are required to register and to furnish a monthly return of all wages paid. These measures formed part of the Commonwealth scheme of child endowment, the revenue from the tax

being designed to provide part of the money required. The exemption was increased to £80 a week (£4,160 per annum) from 1st October, 1953, to £120 a week (£6,240 per annum) from 1st September, 1954, and to £200 a week (£10,400 per annum) from 1st September, 1957.

Receipts from pay-roll tax for the years 1954-55 to 1958-59 were, 1954-55, £41,455,000; 1955-56, £45,543,000; 1956-57, £48,675,000; 1957-58, £48,552,000; 1958-59, £49,619,000.

(e) *Income Taxes.* Details of taxes on income are given in division E of this chapter.

(f) *Wool Sales Deduction.* The Wool Sales Deduction Act 1950 and the Wool Sales Deduction (Administration) Act 1950 came into operation on 2nd December, 1950, and required that a deduction be made from the sale value of wool sold or exported, the amount deducted being set off against the Income Tax and Social Services Contribution assessed in respect of the income of the year 1950-51. These Acts were repealed by the Wool Sales Deduction Legislation Repeal Act 1951 which came into operation on 17th November, 1951, and provided for the refund to producers, etc., of amounts paid on the value of wool sold or otherwise disposed of after 30th June, 1951. The amount of deduction collected in 1951-52 was £5,963,000. In 1952-53 and 1953-54, refunds amounted to £2,223,000 and £239,000 respectively.

(g) *Estate Duty.* The Commonwealth Estate Duty was first levied in 1914. Particulars of exemptions allowed and the rates imposed prior to November, 1957, are given in earlier issues of the Year Book (see No. 43, p. 758).

Under the Estate Duty Assessment Act 1914-1957, Estate Duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula:—(a) where the whole of the estate passes to the widow, children (including adopted children, step-children and ex-nuptial children), or grand-children of the deceased, the sum of £5,000 decreasing by £1 for every £3 by which the value exceeds £5,000 and ceasing to apply at £20,000; (b) where no part of the estate passes to the widow, children or grand-children, the sum of £2,500 decreasing by £1 for every £3 by which the value exceeds £2,500 and ceasing to apply at £10,000; and (c) where part only of the estate passes to the widow, children or grand-children, the statutory exemption is to be calculated proportionately under (a) and (b).

An amendment to this Act, assented to on 20th November, 1957, provided for rebates of duty on estates which become liable for duty on two or more occasions within a period of five years.

The rates of duty levied under the Estate Duty Act 1914-1941 increase as the value of the estate increases as follows:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; over £500,000, 27.9 per cent.

Total collections for the years 1938-39 and 1954-55 to 1958-59 were as follows:—1938-39, £1,915,000; 1954-55, £9,614,000; 1955-56, £10,120,000; 1956-57, £12,712,000; 1957-58, £13,774,000; 1958-59, £13,309,000.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1938-39 and 1953-54 to 1957-58, are given in the following table:—

ESTATE DUTY ASSESSMENTS.

Particulars.	1938-39.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Number of Estates ..	9,681	19,621	12,878	11,069	12,784	13,599
Gross Value Assessed £'000	65,699	187,905	176,853	178,361	213,253	227,310
Deductions .. £'000	12,630	31,010	30,136	31,281	37,376	39,707
Statutory Exemption £'000	..	22,976	23,290	23,802	28,661	30,492
Dutiable Value .. £'000	53,069	133,919	123,427	123,278	147,216	157,111
Duty Payable .. £'000	2,002	10,089	10,310	10,882	13,580	13,967
Average dutiable value £	5,482	6,825	9,584	11,137	11,516	11,553
Average duty per estate £	207	514	801	983	1,062	1,027

(h) *Gift Duty.* The Gift Duty Act 1941-1947 and the Gift Duty Assessment Act 1941-1957 impose a gift duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property which is made otherwise than by will without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty.

The following rates of duty are levied under the Gift Duty Act 1941–1947 and relate to the value of all gifts made by the donor within a period of eighteen months:—Not exceeding £2,000, nil; £2,001 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; £500,001 and over, 27.9 per cent.

An amendment which operated from 3rd June, 1947, provides that gift duty shall not exceed one-half of the amount by which the value of the gift exceeds £2,000.

Total receipts from gift duty for the years 1954–55 to 1958–59 were as follows:—1954–55, £1,618,000; 1955–56, £1,820,000; 1956–57, £1,940,000; 1957–58, £2,205,000; 1958–59, £2,000,000.

(i) *Entertainments Tax.* The Commonwealth levied an Entertainments Tax from 1st October, 1942, to 30th September, 1953. Details of rates are given in earlier issues of the Official Year Book (*see* No. 40, pp. 672 and 673).

(j) *Flour Tax.* Particulars of the rates of flour tax which operated from 4th December, 1933, to 21st December, 1947, are given in Official Year Book No. 37, pages 618 and 619. Because of the rise in wheat prices, the rate was declared to be nil as from 22nd December, 1947.

(k) *Wool Levy.* The Wool Tax Act 1936 and Wool Tax Assessment Act 1936 provided for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. Details of this levy are given in earlier issues of the Official Year Book. This levy was suspended from 1st July, 1946, until 30th June, 1952, while the Wool Contributory Charge was imposed.

With the repeal of the Wool Contributory Charge, however, a levy on wool produced in Australia was re-introduced from 1st July, 1952. The Wool Tax Acts (Nos. 1 and 2) of 1952 provided for the payment of a levy of four shillings a bale until 30th June, 1953, after which date the rate of tax could be varied within prescribed limits. There was no variation until 1st July, 1957, when the rate was increased to six shillings a bale. The purpose of the tax is to provide funds for publicity and research previously provided by the Wool Contributory Charge. Collections during 1954–55, 1955–56, 1956–57, 1957–58 and 1958–59 were £784,000, £851,000, £979,000, £1,328,000 and £1,389,000 respectively.

(l) *Wool Contributory Charge.* The Wool (Contributory Charge) Act 1945 and the Wool (Contributory Charge) Assessment Act 1945 imposed a charge on all wool produced in Australia and sold, manufactured or exported. Wool sold by the Australian Wool Realization Commission was not liable to the charge. Details of the rate of the charge and collections made were given in earlier issues of the Official Year Book (*see* No. 40, p. 675).

The various Wool (Contributory Charge) Acts were repealed by the Wool Tax Assessment Act of 1952 and the charge superseded by the wool levy.

(m) *Wheat Export Charge and Wheat Tax.* A summary of the provisions of the Wheat Export Charge Acts 1946, 1948 and 1952 is contained in previous issues of the Official Year Book (*see* No. 40, p. 676 and No. 41, p. 604).

The Wheat Export Charge Act 1954 repealed previous Acts and provided for an export charge on wheat and wheat products for the seasons 1953–54 to 1958–59 inclusive. The charge levied is based on the difference between the cost of production and the export price with a maximum levy of 1s. 6d. a bushel. Under the Wheat Industry Stabilization Act 1954, to which the Wheat Export Charge Act is complementary, the Commonwealth Government guarantees a return to wheat-growers of the ascertained cost of production in respect of up to 100 million bushels of wheat exported from Australia during each of the six seasons. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund.

Collections of the wheat export charge amounted to £5,063,000 in 1954–55, £4,294,000 in 1955–56, nil in 1956–57, £443,000 in 1957–58 and £1,211,000 in 1958–59.

The Wheat Tax Act of 1957 imposed a tax of ¼d. for each bushel of wheat—

- (a) which has been delivered to the Wheat Board on or after the first day of October, 1956, and before the date of commencement of the Act; or
- (b) which is delivered to the Wheat Board on or after that date.

The Act also provided that where, before the commencement of the Act, a person delivering to the Board wheat upon which tax is imposed by the Act authorized the Board to deduct an amount from the moneys payable to him and to pay the amount so deducted to a person, authority or association for the purposes of soil fertility research or other research likely to benefit the wheat industry and the Board did so, the tax otherwise payable upon that wheat is to be reduced by the amount so deducted.

The Wheat Research Act of 1957 provided for the establishment of a Wheat Research Trust Account to receive moneys payable under the Wheat Tax Act 1957 and for the setting up of a Wheat Industry Research Council to direct the expenditure of moneys from that Trust Account for research, etc., to benefit the Wheat Industry.

Collections of Wheat Tax in 1958-59 amounted to £207,000, which was paid to the Wheat Research Trust Account.

(n) *Miscellaneous Export Charges.* These consist of charges levied on exports of apples and pears (Apple and Pear Export Charges Act 1938-1947), canned fruits (Canned Fruits Export Charges Act 1926-1952), dairy produce (Dairy Produce Export Charges Act 1924-1937), dried fruits (Dried Fruits Export Charges Act 1924-1929), eggs (Egg Export Charges Act 1947) and meat (Meat Export Charges Act 1935-1954) and on grapes used in the manufacture of wine (Wine Grapes Charges Act 1929-1954). The collections are paid into special funds to be applied for the purposes of Export Boards established under various Acts, in controlling the quantity and quality of produce exported.

Collections for the last five years were as follows:—1954-55, £300,000; 1955-56, £414,000; 1956-57, £375,000; 1957-58, £390,000 and 1958-59, £566,000.

(o) *Stevedoring Industry Charge.* The Stevedoring Industry Charge Act 1947 and the Stevedoring Industry Charge Assessment Act 1947 imposed a charge of 4½d. a man-hour on the employer of a waterside worker after 22nd December, 1947.

The amounts received are paid to the Stevedoring Industry Board for the payment of attendance money to waterside workers and for other expenses of the Board.

Since 1947, the charge has been amended as follows:—11th October, 1949, a reduction to 2½d. a man-hour; 11th December, 1951, an increase to 4d. a man-hour; 28th October, 1952, an increase to 11d. a man-hour; 4th May, 1954, a reduction to 6d. a man-hour; 30th October, 1956, an increase to 1s. 7d. a man-hour; and from 21st May, 1957, an increase to 2s. a man-hour.

A further amendment under the Stevedoring Industry Charge Act 1958 which came into operation on 1st April, 1958, provided for an increase of the charge to 3s. a man-hour until 1st July, 1959, and a reduction to 2s. 6d. a man-hour on or after 1st July, 1959.

Collections during the years 1954-55 to 1958-59 were as follows:—1954-55, £998,000; 1955-56, £973,000; 1956-57, £1,926,000; 1957-58, £3,337,000; and 1958-59, £4,572,000.

(p) *Gold Tax.* Particulars of the Gold Tax which operated from 15th September, 1939, to 20th September, 1947, are given in Official Year Book No. 39, page 767.

(q) *Tobacco Industry Charge.* The Tobacco Charge Acts (Nos. 1, 2 and 3) 1955 and the Tobacco Charges Assessment Act 1955, which came into operation on 1st January, 1956, provided for charges on tobacco leaf grown in Australia.

The Tobacco Charge Act (No. 1) 1955 imposed a maximum charge of ¼d. a pound on all Australian tobacco leaf sold to a manufacturer.

The Tobacco Charge Act (No. 2) 1955 imposed a charge at twice the rate to be levied under the Tobacco Charge Act (No. 1) on all Australian tobacco leaf purchased by a manufacturer.

The Tobacco Charge Act (No. 3) 1955 imposed a charge on all Australian tobacco leaf grown by a manufacturer and appropriated by him for manufacturing purposes. Where the manufacturer grew, in Australia, not less than nine-tenths of the tobacco leaf used by him in manufacturing, the charge was at the rate imposed by the Tobacco Charge Act (No. 1). In other cases, the charge was at twice that rate.

The charges collected under the Tobacco Charges Assessment Act 1955 were paid into the Tobacco Industry Trust Account which was established by the Tobacco Industry Act, 1955. Moneys in this account are used for the promotion of the tobacco industry.

Collections in 1955-56, 1956-57, 1957-58 and 1958-59 amounted to £5,000, £41,000, £61,000 and £72,000 respectively.

(r) *Dairy Produce Levy.* The Dairy Produce Levy Act 1958 imposed a levy on the manufacture of butter and cheese for the purpose of financing a research and sales promotion scheme for the dairy industry. The maximum rates of the levy are fixed at three-sixteenths of a penny a pound on butter and three-thirty-seconds of a penny on cheese. In 1958-59, collections amounted to £151,000.

3. *Business Undertakings.*—(i) *Postmaster General's Department.* Particulars of net receipts for each of the financial years 1938-39 and 1954-55 to 1958-59 are given in the following table:—

POSTMASTER-GENERAL'S DEPARTMENT: NET RECEIPTS.
(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Private boxes and bags ..	74	180	185	240	247	258
Commission on money orders and postal notes ..	289	862	935	926	932	956
Telegraphs ..	1,372	4,934	4,960	5,904	6,169	6,321
Telephones ..	8,040	40,402	44,351	51,002	55,344	59,717
Postage ..	6,636	24,139	26,597	29,464	31,339	33,165
Miscellaneous ..	955	2,308	2,313	2,538	2,745	3,050
Total ..	17,366	72,825	79,341	90,074	96,776	103,467

Further particulars of the Postmaster-General's Department's receipts to 1958-59 are given in Chapter XIV.—Transport and Communication, of this Year Book (see p. 558).

(ii) *Broadcasting Services.* Following the amendment of the Australian Broadcasting Act 1942-1946 by Act No. 64 of 1948, the Broadcasting Control Board was set up on 15th March, 1949. (See also Chapter XIV.—Transport and Communication, p. 571).

Details of net receipts for the years 1954-55 to 1958-59 are shown in the following table:—

BROADCASTING SERVICES: NET RECEIPTS.
(£'000.)

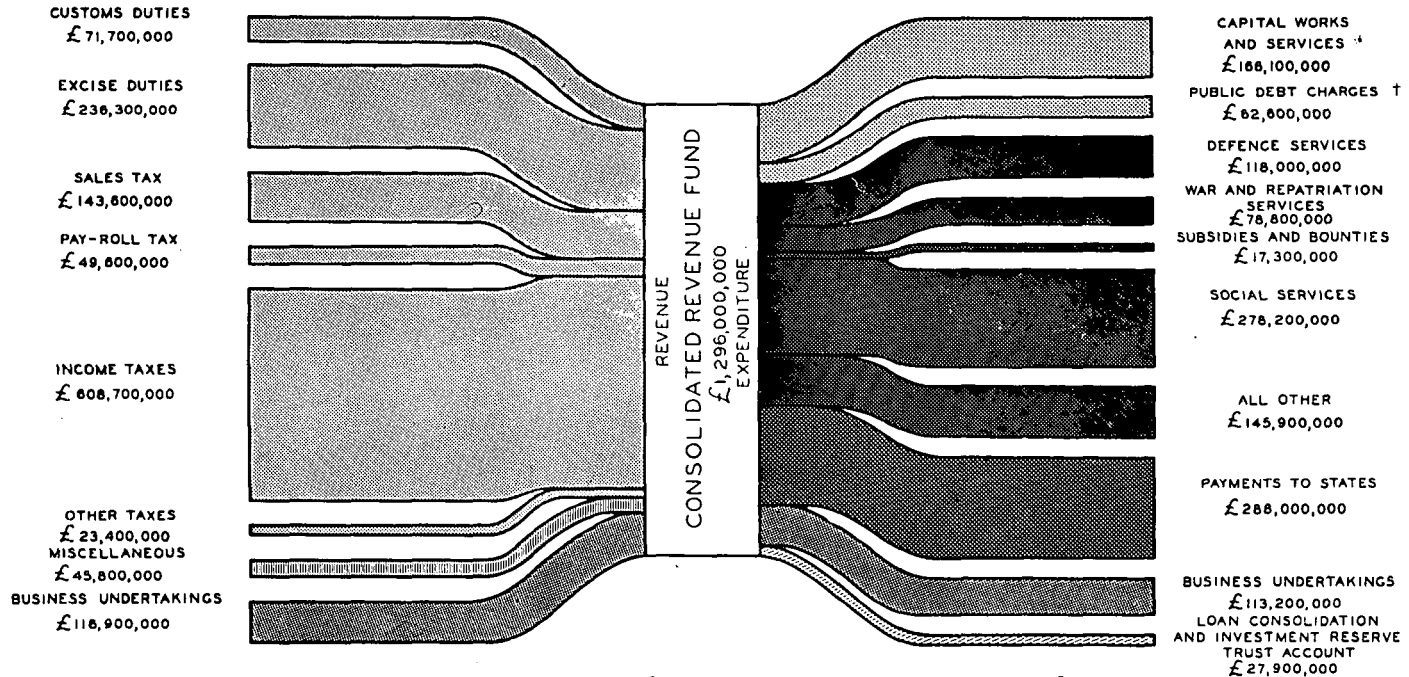
Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Listeners' Licence Fees ..	3,831	3,846	4,866	5,371	5,693
Broadcasting Station Licence Fees ..	27	35	66	80	85
Television Viewers' Licence Fees ..	..	..	344	1,389	2,777
Television Station Licence Fees ..	..	..	..	7	19
Miscellaneous ..	17	16	25	29	44
Total ..	3,875	3,897	5,301	6,876	8,618

(iii) *Commonwealth Railways.* The Commonwealth Government is responsible for four railways—the Trans-Australian, the Central Australia, the North Australia and the Australian Capital Territory. The following table shows the amounts paid to the credit of the Consolidated Revenue Fund on account of each of these railways for the years 1938-39 and 1954-55 to 1958-59:—

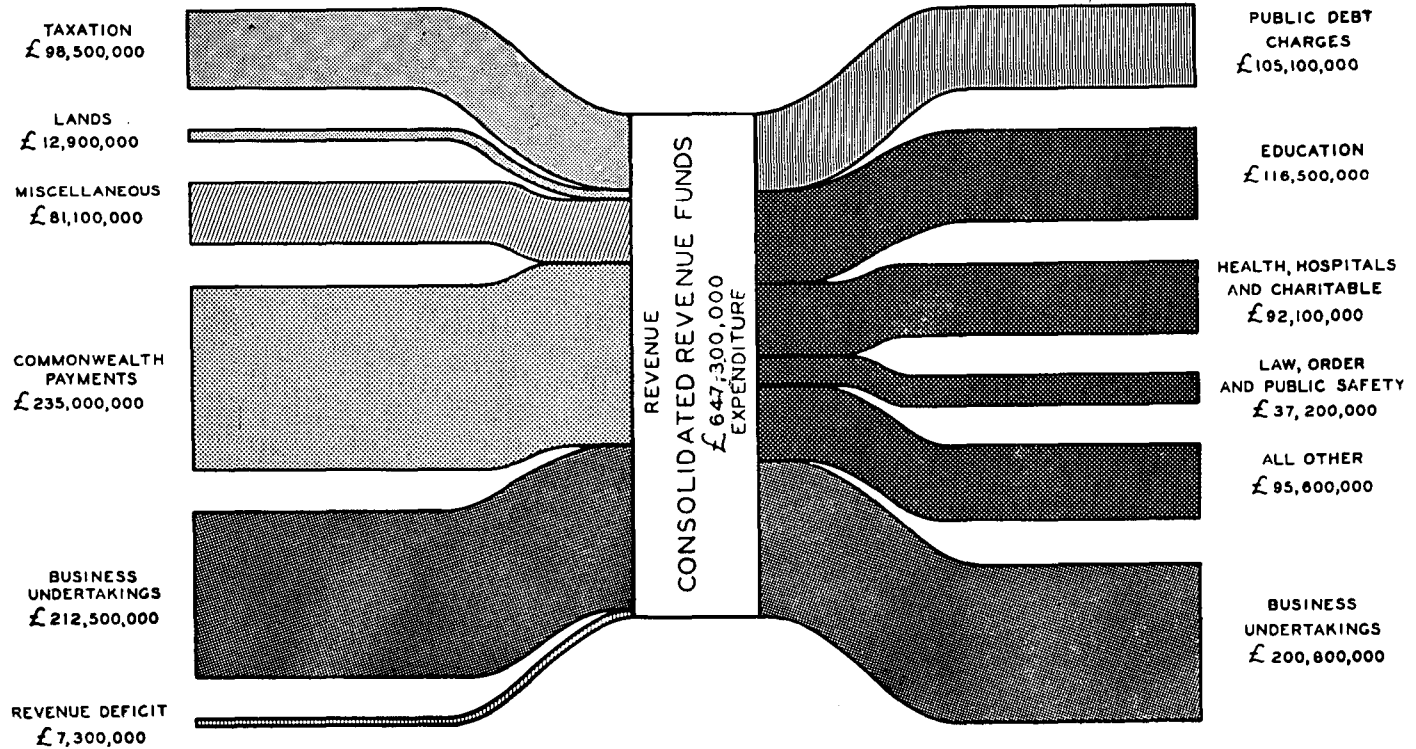
COMMONWEALTH RAILWAYS REVENUE.
(£'000.)

Railway.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Trans-Australian ..	331	1,928	2,545	2,887	2,821	2,927
Central Australia ..	138	1,483	1,937	1,390	1,554	1,635
North Australia ..	50	70	86	130	182	203
Aust. Cap. Territory ..	7	29	15	21	19	46
Total ..	526	3,510	4,583	4,428	4,576	4,811

COMMONWEALTH CONSOLIDATED REVENUE FUND, YEAR ENDED 30TH JUNE, 1959



STATE CONSOLIDATED REVENUE FUNDS, YEAR ENDED 30TH. JUNE, 1959



Further particulars to 1958-59 are given in Chapter XIV.—Transport and Communication (*see pp. 532 and 538*).

4. Other Sources of Revenue.—Revenue derived by the Consolidated Revenue Fund from the Territories of the Commonwealth during 1958-59 amounted to £3,189,000 (Australian Capital Territory £1,947,000; Northern Territory £1,227,000; Cocos (Keeling) Islands £15,000). Of other sources of revenue, amounting to £42,667,000, the following are noteworthy:—Interest, £11,572,000; Defence £6,185,000, Net Profit on Australian Note Issue £10,935,000; and Surplus Balances of Trust Accounts, £5,722,000.

III.—Expenditure.

1. Details of Expenditure from Consolidated Revenue.—The following table shows details of expenditure from the Consolidated Revenue Fund during the years 1938-39 and 1954-55 to 1958-59.

COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE. (£'000.)

Department, etc.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Defence Services(a)	7,506	153,187	152,929	151,263	151,258	118,083
War (1914-18 and 1939-45) and Repatriation Services(b) ..	19,242	120,120	124,487	112,296	127,924	128,162
Subsidies and Bounties	236	21,539	17,393	15,014	15,660	17,294
Cost of Departments(c)	9,237	78,799	87,913	96,775	106,613	129,311
National Welfare Fund	(d) 16,428	189,319	214,866	223,923	247,485	278,227
Debt Redemption Reserve Trust Account .. ..	..	70,151	..	..	..	..
Loan Consolidation and Investment Reserve Trust Account ..	..	..	61,613	194,793	104,378	27,947
Business Undertakings—						
Postmaster-General	14,878	76,246	85,627	91,197	96,952	100,480
Broadcasting Services	(e) 4,871	5,590	5,590	6,701	7,334	8,371
Railways	1,331	3,622	3,721	4,244	4,321	4,378
Territories	1,100	12,971	14,603	16,510	19,288	20,616
Capital Works and Services—						
Defence	1,349	33,003	38,479	38,427	35,037	34,983
Repatriation	141	30,131	30,242	30,167	35,206	35,308
Postmaster-General	3,851	25,839	28,970	30,721	34,811	36,353
Broadcasting Services	(e) 273	817	817	2,697	1,583	1,408
Railways	142	3,100	2,674	3,422	2,545	1,281
Territories	739	5,168	8,049	8,027	11,749	14,906
Other(f)	493	29,032	30,865	32,488	36,868	41,785
Payments to or for States(g) ..	15,749	200,937	220,907	244,610	271,351	287,989
Other Expenditure(h)	2,643	9,133	8,613	8,560	13,408	9,168
Grand Total	95,065	1,067,441	1,138,358	1,311,835	1,323,771	1,296,050
Per Head of Population	£ s. d. 13 14 3	£ s. d. 117 8 7	£ s. d. 122 4 0	£ s. d. 137 11 8	£ s. d. 135 16 7	£ s. d. 130 4 6

(a) Excludes debt charges, Audit charges, Pension and Superannuation payments and Defence Division of the Department of the Treasury. (b) Excludes Audit Charges and Government contributions under Superannuation Act. (c) Includes Audit charges relating to Defence and War and Repatriation Services and excludes payments to the States for Cattle Tick Control, Dairy Industry Extension, Agricultural Advisory Services and Tobacco Industry Assistance. (d) Invalid and Age Pensions and Maternity Allowances. (e) Provided in part from Postmaster-General's Department votes and balance from Broadcasting Trust Account. (f) Excludes expenditure from Capital Works votes on Grants for Railway Standardization included as payments to the States. (g) Includes payments to States from Departmental votes. See footnotes (c) and (f). (h) Includes assistance to Primary Producers.

Further details of the expenditure in each section are given in paragraphs 2 to 14 following.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 823. In this diagram, Public Debt Charges (interest and debt redemption, etc.) are shown as a separate item, whereas in the table above these charges are included in the section to which they relate.

Details of Commonwealth expenditure on public debt charges for 1938–39 and 1954–55 to 1958–59 are shown in the following table:—

PUBLIC DEBT CHARGES(a): COMMONWEALTH EXPENDITURE.

(£'000.)

Item.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
<i>War (1914–18 and 1939–45)</i>						
<i>Debt—(b)</i>						
Interest and Exchange ..	7,616	43,234	43,514	42,695	39,545	36,208
Debt Redemption ..	2,049	15,273	16,299	15,829	12,337	12,550
Other(c) ..	224	376	214	279	163	594
<i>Total</i>	<i>9,889</i>	<i>58,883</i>	<i>60,027</i>	<i>58,803</i>	<i>52,045</i>	<i>49,352</i>
<i>Business Undertakings— Postmaster-General's Department—</i>						
Interest and Exchange ..	1,758	1,303	885	862	833	799
Debt Redemption ..	1,129	1,655	1,438	1,172	979	798
Other(c) ..	..	253	..	..	..	..
<i>Total</i>	<i>2,887</i>	<i>3,211</i>	<i>2,323</i>	<i>2,034</i>	<i>1,812</i>	<i>1,597</i>
<i>Railways—</i>						
Interest and Exchange ..	455	410	388	385	390	381
Debt Redemption ..	75	163	172	180	189	199
Other(c) ..	11	19	..	..	..	..
<i>Total</i>	<i>541</i>	<i>592</i>	<i>560</i>	<i>565</i>	<i>579</i>	<i>580</i>
<i>Territories—</i>						
Interest and Exchange ..	318	234	233	228	227	222
Debt Redemption ..	58	127	133	140	147	154
Other(c) ..	4	..	..	..	..	..
<i>Total</i>	<i>380</i>	<i>361</i>	<i>366</i>	<i>368</i>	<i>374</i>	<i>376</i>
<i>Works and other Purposes—</i>						
Interest and Exchange ..	3,226	6,089	8,175	9,228	10,928	10,095
Debt Redemption ..	613	556	625	599	620	503
Other(c) ..	37	145	77	553	190	112
<i>Total</i>	<i>3,876</i>	<i>6,790</i>	<i>8,877</i>	<i>10,380</i>	<i>11,738</i>	<i>10,710</i>
<i>Total—</i>						
Interest and Exchange ..	13,373	51,270	53,195	53,398	51,923	47,705
Debt Redemption ..	3,924	17,774	18,667	17,920	14,272	14,204
Other(c) ..	276	793	291	832	353	706
<i>Grand Total ..</i>	<i>17,573</i>	<i>69,837</i>	<i>72,153</i>	<i>72,150</i>	<i>66,548</i>	<i>62,615</i>

(a) Excludes payments to or for the States under the Financial Agreement. See pages 835-38.
 (b) Includes repatriation debt. (c) Redemption, conversion and loan management, etc., expenses.

2. Defence Services.—Details of the expenditure on defence services by the Departments of Defence, Navy, Army, Air, Supply and Defence Production are shown in the following table. The expenditure shown under Department of Supply includes the former Departments of Shipping and Fuel, Supply and Development, Supply and Shipping, and Munitions. This table covers expenditure by the service and associated departments only, and includes the cost of maintaining forces in Korea and at other overseas posts.

The figures represent the combined expenditures from revenue, trust and loan funds for the years 1938-39 and 1954-55 to 1958-59.

DEFENCE SERVICES(a): COMMONWEALTH EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS.

(£'000.)

Item.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Department of Defence</i>	61	643	760	857	931	1,008
<i>Department of the Navy—</i>						
Naval Forces—Pay, maintenance, etc.	2,592	34,311	35,273	31,728	31,635	32,088
Naval construction and additions to the fleet	1,643	6,422	4,884	3,392	5,825	5,220
Aircraft and Aircraft Engines	..	4,086	5,438	973	2,902	1,270
Buildings, works, etc.	433	1,674	1,636	1,448	1,603	1,548
Advances to States under Commonwealth-State Housing Agreement	..	..	..	351	290	254
Administrative and miscellaneous expenditure	31	866	932	1,127	1,159	1,296
<i>Total</i>	4,699	47,359	48,163	39,019	43,414	41,676
<i>Department of the Army—</i>						
Military Forces—Pay, maintenance, etc.	2,941	38,653	39,808	40,683	37,243	40,277
Arms, armament, ammunition	1,129	18,435	16,374	14,092	13,891	18,939
Buildings, works, etc.	418	2,938	3,466	2,963	3,343	3,498
Advances to States under Commonwealth-State Housing Agreement	..	..	..	493	498	456
Administrative and miscellaneous expenditure	71	1,643	2,119	2,280	2,443	2,645
<i>Total</i>	4,559	61,669	61,767	60,511	57,418	65,815
<i>Department of Air—</i>						
Air Force—Pay, maintenance, etc.	1,304	22,744	24,081	25,200	27,736	27,038
Aircraft, equipment and stores	1,049	22,708	23,541	23,130	22,629	25,874
Buildings, works, etc.	489	2,587	3,013	2,662	2,869	4,147
Advances to States under Commonwealth-State Housing Agreement	..	..	..	345	387	485
Administrative and miscellaneous expenditure	12	1,357	1,734	1,906	2,096	2,296
<i>Total</i>	2,854	49,396	52,369	53,243	55,717	59,840
<i>Department of Supply(b)—</i>						
Defence research and development	..	9,328	10,689	10,362	10,509	10,242
Buildings, works, etc.	463	959	7,466	15,171	6,653	1,157
Administrative and miscellaneous expenditure	1,212	8,604	9,491	9,895	10,706	9,559
<i>Total</i>	1,675	18,891	27,646	35,428	27,868	20,958
<i>Economic assistance to support defence programme of S.E.A.T.O. member countries</i> .. ..	..	..	..	26	165	298
<i>Administration of National Service Act</i> .. ..	..	199	218	206	186	159
<i>Defence Equipment and Supplies(c)</i> .. ..	..	8,000	..	..	..	..
<i>Civil Defence</i> .. ..	..	33	89	130	95	102
<i>Recruiting Campaign</i> .. ..	..	..	372	224	327	311
<i>Other</i> .. ..	..	..	24	46	174	205
<i>Total Defence Services—</i>						
Consolidated Revenue Fund	8,863	186,190	191,408	189,690	186,295	153,066
Trust Funds	(d) 3,072	..	..	..	..	..
Loan Fund	1,913	..	..	..	..	37,306
<i>Grand Total</i>	13,848	186,190	191,408	189,690	186,295	190,372

(a) Excludes expenditure on debt charges, Audit charges, pension and superannuation payments and Defence Division of the Department of the Treasury. (b) Includes Department of Defence Production, amalgamated with Department of Supply in 1957-58. (c) Paid to credit of Defence Equipment and Supplies Trust Account. (d) Expenditure from excess receipts of previous years appropriated for Defence Equipment Trust Account.

3. War and Repatriation Services.—Expenditure from Consolidated Revenue and Loan Fund for War and Repatriation Services and Post-war Charges in relation to both the 1914-18 and 1939-45 Wars is shown in the following table for the years 1938-39 and

1954-55 to 1958-59. Expenditure on the maintenance of forces in Korea and at other oversea posts and the cost of arms and equipment is included in Defence Services (*see* para. 2 above).

WAR AND REPATRIATION SERVICES AND POST-WAR CHARGES: COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE AND LOAN FUNDS.

(£'000.)

Item.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Public Debt Charges—</i>						
Interest and Exchange	7,616	43,234	43,514	42,695	39,545	36,208
Debt Redemption	2,049	15,273	16,299	15,829	12,337	12,550
Other	224	376	214	279	163	594
<i>Total Public Debt Charges(a) ..</i>	<i>9,889</i>	<i>58,883</i>	<i>60,027</i>	<i>58,803</i>	<i>52,045</i>	<i>49,352</i>
War Gratuities					16	8
War and Service Pensions	8,228	44,548	47,307	(b)36,763	55,982	57,107
Commonwealth Reconstruction Training Scheme		314	221	256	340	365
War Service Land Settlement		4,789	8,790	9,550	10,302	7,520
Re-establishment loans for agricultural purposes		106	71	83	65	63
<i>Repatriation Department—</i>						
Repatriation Benefits	631	11,720	12,278	13,069	14,182	15,988
Other benefits	119	486	473	555	730	738
Administration and general expenses(c) ..	315	3,639	3,937	3,806	3,933	3,953
Expenditure recovered(d)	-71	-1,226	-1,082	-1,128	-1,022	-942
<i>Total Repatriation Department ..</i>	<i>994</i>	<i>14,619</i>	<i>15,606</i>	<i>16,302</i>	<i>17,823</i>	<i>19,737</i>
War Service Homes—Salaries and general expenses	98	815	948	911	938	978
Other Departments—Miscellaneous expenditure	43	472	369	383	409	368
International Payments(e)		41	36	136	47	39
Other Administrations—Recoverable expenditure(f)		-429	-1,266	-2,872	-1,340	-1,675
<i>Capital Works and Services—</i>						
Repatriation Department	36	132	242	167	206	308
War Service Homes Act 1918-1949 ..	105	29,999	30,000	30,000	35,000	35,000
<i>Total Capital Works and Services ..</i>	<i>141</i>	<i>30,131</i>	<i>30,242</i>	<i>30,167</i>	<i>35,206</i>	<i>35,308</i>
<i>Total War and Repatriation Services and Post-war Charges—</i>						
Consolidated Revenue Fund	19,393	150,250	154,729	142,463	163,130	163,470
Loan Fund		4,039	7,622	8,019	8,703	5,700
Grand Total	19,393	154,289	162,351	150,482	171,833	169,170

(a) Excludes Interest and Redemption on War (1914-18) Debt due to the United Kingdom Government, payment of which was suspended in 1931. (b) In addition, £13,400,000 was spent from balance of War Pensions Trust Fund. (c) Revised to exclude Audit Charges. (d) From Service Departments and Australian Soldiers' Repatriation Trust Account. (e) Excludes International Monetary Fund charges. (f) Munitions, stores, etc., supplied to the Government of United Kingdom and other administrations. Includes repayments and waiver of war-time indebtedness of other administrations.

NOTE.—Minus sign (–) indicates excess of credits or repayments over expenditure.

4. **Subsidies and Bounties.**—The following table shows details of Commonwealth expenditure from revenue on subsidies, bounties and assistance to primary producers for the years 1938-39 and 1954-55 to 1958-59. Expenditure on special relief such as drought, frost, flood and bush fire, etc. (*see* table, p. 831, for more important items), is not included, nor is expenditure from the proceeds of certain taxes on primary products and profits from marketing schemes, which have been paid to trust funds for the purpose of price or other stabilization schemes or for distribution to producers (*see* paragraph 13, p. 840). Further information relating to these schemes and other assistance to primary producers is given in Chapter XXII.—Agricultural Production.

Details of price stabilization subsidies and of various forms of assistance to primary producers for earlier years may be found on pages 414 and 1014-15, respectively, of Official Year Book No. 38.

SUBSIDIES AND BOUNTIES: COMMONWEALTH EXPENDITURE.
(£'000.)

Item.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Subsidies—</i>						
<i>Price Stabilization—</i>						
Tea .. .. .	..	5,077	1,734	..	..	..
Coal .. .. .	..	185	27	..	..	..
<i>Total</i> .. .. .	..	5,262	1,761	..	..	..
<i>Assistance to Primary Production—</i>						
Dairy Industry(a) .. .. .	..	15,750	14,500	13,500	13,500	13,500
Assistance to Gold-mining Industry .. .. .	..	97	401	495	660	898
<i>Total Subsidies</i> .. .. .	..	21,109	16,662	13,995	14,160	14,398
<i>Bounties—</i>						
Tractor .. .. .	..	82	55	158	467	415
Sulphuric Acid .. .. .	..	306	513	421	709	1,301
Cellulose Acetate Flake .. .. .	..	..	..	179	110	110
Copper .. .. .	..	..	..	..	..	768
Other	(b) 236	42	163	261	214	302
<i>Total Bounties</i>	236	430	731	1,019	1,500	2,896
<i>Grand Total</i>	236	21,539	17,393	15,014	15,660	17,294

(a) Dairy products.

(b) Includes Raw Cotton Bounty, £115,000 and Sulphur Bounty, £88,000.

5. **Total Cost of Departments.**—Expenditure under this heading covers expenditure by departments, other than the Defence and Repatriation Departments and business undertakings, on administrative services and other activities. Expenditure on defence (other than interest and debt redemption in respect of the defence departments, which is included in the expenditure of the Department of the Treasury), war and repatriation services, subsidies and bounties, social services paid from the National Welfare Fund, business undertakings, Commonwealth territories, and capital works and services is excluded.

Information on the functions of departments and the Acts administered by the Ministers of departments was published in Official Year Book No. 37, pages 76-86, and particulars of subsequent changes in departmental structure were given in later issues (see No. 43, p. 81).

In the following table, details are given of that expenditure on the branches of each department which might be termed running expenses. Miscellaneous expenditure and debt charges, etc., are not included in this table but are in the one following.

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—SALARIES, WAGES AND GENERAL EXPENDITURE.
(£'000.)

Department.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Governor-General</i>	28	82	94	103	116	116
<i>Parliament—</i>						
Cost of Parliament	279	1,281	1,419	1,621	1,704	1,764
Electoral Office	105	427	532	507	605	554
<i>Total</i>	384	1,708	1,951	2,128	2,309	2,318
<i>Prime Minister—</i>						
Department	62	229	270	284	316	333
Audit Office	38	506	609	603	622	623
Public Service Board	51	485	597	589	619	667
National Library	4	136	160	168	180	201
High Commissioner's Office—United Kingdom	81	587	658	725	762	832
Commonwealth Grants Commission	5	17	19	18	22	20
Office of Education .. .. .	..	156	194	186	182	177
Security Services .. .. .	..	362	422	425	483	498
<i>Total</i>	241	2,478	2,929	2,998	3,186	3,351
<i>External Affairs—</i>						
Department	20	441	486	580	619	675
Oversea representation .. .. .	..	1,232	1,444	1,484	1,569	1,655
<i>Total</i>	20	1,673	1,930	2,064	2,188	2,330
<i>Treasury—</i>						
Department	59	496	579	626	685	766
Taxation Branch and Boards of Review	616	6,741	7,489	7,810	8,117	8,362
Bureau of Census and Statistics	61	646	776	860	1,217	1,492
Commonwealth Superannuation Board	9	82	89	87	94	88
<i>Total</i>	745	7,965	8,933	9,383	10,113	10,708

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—SALARIES, WAGES AND GENERAL EXPENDITURE—continued.
(£'000.)

Department.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Attorney-General—</i>						
Department	20	219	256	269	268	281
Crown Solicitor	28	264	315	326	336	343
High Court	34	96	109	115	111	131
Bankruptcy Administration	44	122	146	161	170	180
Court of Conciliation and Arbitration	24	180	199	211	219	245
Patents, Trade Marks and Designs	71	379	388	396	407	414
Other Branches	37	329	401	387	375	406
<i>Total</i>	<i>258</i>	<i>1,589</i>	<i>1,814</i>	<i>1,865</i>	<i>1,886</i>	<i>2,000</i>
<i>Interior—</i>						
Department	296	1,239	1,086	(a) 810	(a) 833	(a) 908
Meteorological Branch	80	540	601	1,012	1,081	1,362
Ionospheric Prediction Service	7	76	88	74	(b) 41	(b) 44
Forestry Branch	10	93	116	126	154	144
News and Information Bureau .. .. .	..	(c)	271	268	277	283
<i>Total</i>	<i>393</i>	<i>1,948</i>	<i>2,162</i>	<i>2,290</i>	<i>2,386</i>	<i>2,741</i>
<i>Works</i>	(d)	2,077	2,401	2,103	2,125	2,028
<i>Civil Aviation</i>	90	2,482	2,907	3,181	3,243	3,033
<i>Customs and Excise</i>	(e) 721	(e) 3,650	3,992	3,920	4,130	4,284
<i>Health—</i>						
Department	} 135	{ 458	516	556	597	624
Quarantine .. .. .	..	222	238	261	278	284
Health Services .. .. .	..	505	608	639	659	706
<i>Total</i>	<i>135</i>	<i>1,185</i>	<i>1,362</i>	<i>1,456</i>	<i>1,534</i>	<i>1,614</i>
<i>Trade—</i>						
Department	(f)	(f)	425	918	1,028	1,136
Tariff Board	(g)	(g)	68	73	89	134
Commercial Intelligence Services .. .. .	..	..	453	512	562	619
Abroad	(f)	(f)	..	..	..	..
<i>Total</i>	<i>..</i>	<i>..</i>	<i>946</i>	<i>1,503</i>	<i>1,679</i>	<i>1,889</i>
<i>Primary Industry—</i>						
Department	} (f)	(f)	{ 268	343	380	390
Inspection of goods for export .. .. .	..	..	1,007	996	1,043	1,144
Division of Agricultural Economics .. .. .	..	..	(h) 168	127	142	133
<i>Total</i>	<i>..</i>	<i>..</i>	<i>1,443</i>	<i>1,466</i>	<i>1,565</i>	<i>1,667</i>
<i>Commerce and Agriculture—</i>						
Department	58	428	..	..	..	..
Inspection of goods for export	175	841	..	..	..	..
Commercial Intelligence Services .. .. .	..	..	..	..	..	..
Abroad	47	393	(i)	(i)	(i)	(i)
Division of Agricultural Economics .. .. .	..	..	..	..	..	..
and Division of Agricultural Production .. .. .	..	153	..	..	..	..
<i>Total</i>	<i>280</i>	<i>1,814</i>	..	..	..	..
<i>Social Services—Department</i>	<i>139</i>	<i>2,436</i>	<i>2,632</i>	<i>2,767</i>	<i>3,085</i>	<i>3,215</i>
<i>Shipping and Transport—</i>						
Department .. .. .	..	136	160	158	169	165
Marine Branch	208	816	898	953	979	989
Ship Construction .. .. .	..	17	16	16	16	16
<i>Total</i>	<i>208</i>	<i>969</i>	<i>1,074</i>	<i>1,127</i>	<i>1,164</i>	<i>1,170</i>
<i>Territories—Department</i>	(j)	154	184	214	264	271
<i>Immigration—Department</i>	(d)	1,378	1,727	1,795	1,879	1,956
<i>Labour and National Service—Department</i> .. .. .	..	1,757	1,967	2,010	2,071	2,136
<i>National Development—</i>						
Department .. .. .	..	350	335	215	227	232
Bureau of Mineral Resources .. .. .	..	379	522	586	785	782
Division of National Mapping .. .. .	..	(c)	(c)	230	307	312
<i>Total</i>	<i>..</i>	<i>729</i>	<i>857</i>	<i>1,031</i>	<i>1,319</i>	<i>1,326</i>
<i>Commonwealth Scientific and Industrial Research Organization—Department</i>	<i>195</i>	<i>3,989</i>	<i>4,716</i>	<i>4,959</i>	<i>5,427</i>	<i>6,086</i>
<i>Atomic Energy Commission</i> .. .. .	..	430	640	699	1,331	1,525
<i>Total All Departments</i>	<i>3,837</i>	<i>40,492</i>	<i>46,661</i>	<i>49,062</i>	<i>53,000</i>	<i>55,764</i>

(a) Excludes Division of National Mapping now included under Department of National Development.
 (b) Excludes Observatory now transferred to Australian National University. (c) Included with Interior—Department. (d) Included with Department of the Interior. (e) Department of Trade and Customs.
 (f) See Department of Commerce and Agriculture. (g) Included with Department of Trade and Customs. (h) Includes Division of Agricultural Production. In subsequent years this is included under Primary Industry—Department. (i) See Departments of Trade and Primary Industry. (j) Included with Prime Minister's Department.

The following table gives details of miscellaneous expenditure included in the total cost of departments. It covers such items as interest and debt redemption in respect of departments (including defence departments) which is included under expenditure by the Department of the Treasury, repairs and maintenance of buildings, and special expenditure for which the Commonwealth is committed, such as contributions to international organizations, payment of Commonwealth scholarships, etc. The costs of social services, which are paid from the National Welfare Fund, are not included in this table (see pp. 832-33 for this information).

**COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF
DEPARTMENTS—MISCELLANEOUS EXPENDITURE.(a)**

(£'000.)

Department.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Governor-General</i>	1	25	29	47	42	31
<i>Parliament—</i>						
Cost of elections	3	15	301	19	7	357
Other	12	26	36	52	64	146
<i>Total</i>	15	41	337	71	71	503
<i>Prime Minister—</i>						
Commonwealth Scholarship Scheme and financial assistance to University students .. .. .	..	984	1,111	1,190	1,311	1,655
Australian National University .. .. .	..	748	877	965	1,196	1,404
Bush fire and flood relief, etc.	19	598	394	555	254	96
Other	249	456	894	992	486	588
<i>Total</i>	268	2,786	3,276	3,702	3,247	3,743
<i>External Affairs—</i>						
United Nations and Allied Organizations	(b) 46	647	659	769	828	927
Advance to United Nations—Cost of clearance Suez Canal .. .. .	..	..	..	449	..	..
Australian National Antarctic Research Expeditions .. .. .	..	213	269	342	389	527
International development and relief .. .. .	..	3,429	5,285	5,668	5,666	4,097
Contributions to other international agencies, etc.	4	170	139	177	210	279
<i>Total</i>	50	4,459	6,352	7,405	7,093	5,830
<i>Treasury—</i>						
Interest (including exchange)	3,229	6,089	8,174	9,228	10,928	10,095
Debt Redemption(c)	614	556	625	599	620	503
Other(d)	259	4,093	2,896	5,529	6,661	23,894
<i>Total</i>	4,102	10,738	11,695	15,356	18,209	34,492
<i>Attorney-General</i>	18	81	75	87	99	100
<i>Interior—</i>						
Other departments in Canberra—Transport services, fuel, light and power; overseas publicity, etc. .. .. .	..	358	412	478	517	406
Other	102	373	434	549	613	695
<i>Total</i>	102	731	846	1,027	1,130	1,101
<i>Works</i>	(e)	116	129	146	171	216
<i>Civil Aviation—</i>						
Maintenance and development of civil aviation	218	7,623	4,617	5,048	5,661	7,566
Meteorological maintenance services and other	8	603	407	629	620	707
<i>Total</i>	226	8,226	5,024	5,677	6,281	8,273
<i>Customs and Excise</i>						
Refunds of Diesel Fuel Taxation	(f) 37	(f) 146	102	90	1,314	989
Other .. .. .	..	..	..	..	117	143
<i>Total</i>	37	146	102	90	1,431	1,132
<i>Health—</i>						
Miscellaneous expenditure on health	93	472	509	563	618	669
Other	14	85	109	98	141	106
<i>Total</i>	107	557	618	661	759	775
<i>Trade—</i>						
Export Payments Insurance Corporation	(g)	(g)	199	465	35	500
Other .. .. .	..	..	..	412	504	638
<i>Total</i> .. .. .	..	..	199	877	539	1,138

For footnotes see next page.

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—MISCELLANEOUS EXPENDITURE(a)—continued.
(£'000.)

Department.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Primary Industry —</i>						
Wool Use Promotion and Research ..	(g)	(g)	426	489	885	926
Fisheries development ..			125	270	215	114
Australian Wool Testing Authority—						
Advance			106	161	8	26
Other					190	281
<i>Total</i>			657	920	1,298	1,347
<i>Commerce and Agriculture—</i>						
Wool use publicity, promotion and research	74	392	(h)	(h)	(h)	(h)
Other	162	170				
<i>Total</i>	236	562				
<i>Social Services—</i>						
Compassionate allowances, assistance	186	546	535	884	971	1,909
Homes for Aged, etc.		66	61	55	62	86
Other						
<i>Total</i>	186	612	596	939	1,033	1,995
<i>Shipping and Transport—</i>						
Shipping subsidies, etc.		170	607	357	328	302
Merchant Ship Construction—Subsidy ..		(i)	(i)	1,433	1,858	1,800
Railway fare and freight concessions ..		631	593	2	2	3
Oversea Coal—Loss on Emergency Transport			828			
Overseas Telecommunications Commission—coastal radio service				183	180	235
Other	7	52	44	59	64	68
<i>Total</i>	7	853	2,072	2,034	2,432	2,408
<i>Territories</i>	(j)	2	1	1	2	3
<i>Immigration—</i>						
Assisted migration	(e)	5,791	6,270	5,724	6,835	7,188
Other migration activities	(e)	1,649	2,035	1,936	1,870	1,862
Other	(e)	255	315	300	250	219
<i>Total</i>	(e)	7,695	8,620	7,960	8,955	9,269
<i>Labour and National Service</i>		89	109	114	129	141
<i>National Development—</i>						
Joint Coal Board		282	246	386	195	170
Other		172	140	58	327	679
<i>Total</i>		454	386	444	522	849
<i>Commonwealth Scientific and Industrial Research Organization—</i>						
Miscellaneous grants to scientific bodies	28	110	100	109	124	137
Other		24	29	46	46	64
<i>Total</i>	28	134	129	155	170	201
Total, All Departments	5,383	38,307	41,252	47,713	53,613	73,547

(a) Includes rent, repairs and maintenance. Pension and superannuation contributions and interest and debt redemption in respect of the various departments are included under the Department of the Treasury. Payments to States from Departmental Miscellaneous Expenditure—Cattle Tick Control, Dairy Industry Efficiency Grant, Agricultural Advisory Services and Tobacco Industry Assistance—have been excluded. (b) League of Nations. (c) Unallocated debt charges, in respect of all departments, including defence departments. (d) Includes pensions and superannuation contributions in respect of all departments, including defence departments. (e) Included with Department of the Interior. (f) Department of Trade and Customs. (g) See Department of Commerce and Agriculture. (h) See Departments of Trade and Primary Industry. (i) Provided under Capital Works and Services votes. (j) Included with Prime Minister's Department.

6. **National Welfare Fund.**—The National Welfare Fund was established for the purpose of providing a fund for the payment of Commonwealth social services benefits. During the year 1949-50, an amount equivalent to the total collections of pay-roll tax and social services contribution was paid to the fund from Consolidated Revenue. During 1950-51, the social services contribution was amalgamated with the normal income tax and it became necessary to base the contributions on another formula. For the year 1950-51, the amount paid to the fund was the total of collections of pay-roll tax and social services contribution plus £30,000,000. In 1951-52, the amount paid to the fund was the amount paid in 1950-51 increased in the same proportion as collections of pay-roll tax increased over the collections of pay-roll tax in 1950-51. By an amendment to the National Welfare Fund Act 1943-1950, the amount to be paid to the fund in 1952-53 and subsequent years was changed to the amount of moneys paid out of the fund. In addition to these payments from Consolidated Revenue, the fund received a small amount of interest from investments.

In the following table, details are given of the income and expenditure of the National Welfare Fund and the balance in the fund at the end of each year for the years 1954-55 to 1958-59. A dissection of expenditure into the various types of benefits is given in Chapter XVIII.—Welfare Services (*see* p. 686).

NATIONAL WELFARE FUND: RECEIPTS, EXPENDITURE AND BALANCES.
(£'000.)

Year.	Income.			Expenditure.	Balance in Fund at end of Year.
	Contribution from Consolidated Revenue.	Interest on Investments.	Total.		
1954-55	189,319	2,108	191,427	189,319	191,038
1955-56	214,866	2,086	216,952	214,866	193,124
1956-57	223,923	1,938	225,861	223,923	195,062
1957-58	247,485	1,958	249,443	247,485	197,020
1958-59	278,227	1,977	280,204	278,227	198,997

7. **Debt Redemption Reserve Trust Account.**—Section 4 of the Appropriation Act (No. 2), 1953-1954 provided for payments from the Consolidated Revenue Fund of such sums as the Treasurer may determine. These sums are appropriated to the Debt Redemption Reserve Trust Account for the purpose of expenditure in redeeming any securities forming part of the National Debt of the Commonwealth.

The following payments were made to the Trust Account from the Consolidated Revenue Fund.—1953-54, £56,271,000; 1954-55, £70,151,000. There was no expenditure from the Trust Account until November, 1955, when the total balance of £126,422,000 was paid to the credit of the Loan Consolidation and Investment Reserve. The balance of the Trust Account at 30th June, 1954 and 1955, formed part of General Trust Funds which were invested in special loans to finance Commonwealth and State works programmes.

8. **Loan Consolidation and Investment Reserve Trust Account.**—The Loan Consolidation and Investment Reserve Act 1955 established the Loan Consolidation and Investment Reserve Trust Account for the purpose of repurchase or redemption of securities representing portion of the public debt of the Commonwealth.

In 1955-56, the Account was credited with a transfer from the Debt Redemption Reserve Trust Account of £126,422,000. Payments from the Consolidated Revenue Fund were made as follows:—1955-56, £61,613,000; 1956-57, £194,793,000; 1957-58, £104,378,000, and 1958-59, £27,947,000. Expenditure from the Trust Account on repurchase of securities was £28,701,000 in 1955-56; £43,443,000 in 1956-57; £132,767,000 in 1957-58 and £100,046,000 in 1958-59. The major portion of the balance of the Trust Account at 30th June, 1959, was invested in Commonwealth securities in special loans to finance Commonwealth and State works programmes.

9. **Business Undertakings.**—(1) *Postmaster-General's Department.* From the beginning of 1949-50, Broadcasting Services have been separated from the Postmaster-General's Department. Prior to 1949-50, part of the expenditure on these services was included with that of the Postmaster-General's Department. Details of the expenditure of this Department for the years 1938-39 and 1954-55 to 1958-59 are given in the following table:—

POSTMASTER-GENERAL'S DEPARTMENT: EXPENDITURE.
(£'000.)

Item.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Salaries, stores and materials, mail, engineering services, etc.	11,485	70,568	80,644	86,301	91,777	95,305
Superannuation, Pensions, etc.	392	1,490	1,606	1,745	2,024	2,203
Rents, repairs, etc. ..	114	977	1,054	1,117	1,339	1,375
Interest and Exchange ..	1,758	1,556	885	862	833	799
Debt Redemptions ..	1,129	1,655	1,438	1,172	979	798
<i>Total Working, etc., Expenses ..</i>	<i>14,878</i>	<i>76,246</i>	<i>85,627</i>	<i>91,197</i>	<i>96,952</i>	<i>100,480</i>
Capital Works and Services ..	3,851	25,839	28,970	30,721	34,811	36,353
Grand Total ..	18,729	102,085	114,597	121,918	131,763	136,833

Further details of expenditure for 1958–59 on account of the Postmaster-General's Department appear in Chapter XIV.—Transport and Communication, of this Year Book (*see p. 561*).

(ii) *Broadcasting Services.* Since 1949–50, all expenditure on broadcasting services has been brought together in one section. Previously these services had been financed partly by the Postmaster-General's Department and partly from the Wireless Broadcasting Trust Account. Details of expenditure for the years 1954–1955 to 1958–1959 are shown in the following table.

COMMONWEALTH BROADCASTING SERVICES : EXPENDITURE.
(£'000.)

Item.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Australian Broadcasting Control Board ..	83	106	153	153	192
Australian Broadcasting Commission— Salaries, general and programme expenses	2,702	3,250	4,633	5,100	5,936
Technical and other Services—Postmaster- General—Sound Broadcasting ..	2,068	2,210	1,844	1,995	2,060
Television .. .. .	..	..	53	58	159
Repairs, maintenance, etc.	18	24	18	28	24
<i>Total Working, etc., expenses</i> ..	<i>4,871</i>	<i>5,590</i>	<i>6,701</i>	<i>7,334</i>	<i>8,371</i>
Capital Works and Services	273	817	2,697	1,583	1,408
<i>Grand Total</i>	<i>5,144</i>	<i>6,407</i>	<i>9,398</i>	<i>8,917</i>	<i>9,779</i>

(iii) *Railways.* The Commonwealth Railways, previously administered by the Department of the Interior, were transferred in March, 1950, to the newly formed Department of Fuel, Shipping and Transport, which became the Department of Shipping and Transport in May, 1951. The expenditure on railways for the years 1938–39 and 1954–55 to 1958–59 is shown below.

COMMONWEALTH RAILWAYS : EXPENDITURE.
(£'000.)

Item.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
<i>Working expenses—</i>						
Trans-Australian	494	1,412	1,705	2,057	2,277	2,301
North Australia	55	158	183	239	221	169
Central Australia	214	1,322	1,152	1,238	1,090	1,168
Aust. Capital Territory	7	40	45	50	50	50
Interest and Exchange	455	410	388	385	390	381
Debt Redemption	75	163	172	180	189	199
Superannuation	14	58	59	59	68	74
Miscellaneous	17	(a) 59	17	36	36	36
<i>Total Working, etc., ex- penses</i>	<i>1,331</i>	<i>3,622</i>	<i>3,721</i>	<i>4,244</i>	<i>4,321</i>	<i>4,378</i>
Capital Works and Services	142	3,100	2,674	3,422	2,545	1,281
<i>Grand Total</i>	<i>1,473</i>	<i>6,722</i>	<i>6,395</i>	<i>7,666</i>	<i>6,866</i>	<i>5,659</i>

(a) Includes loan redemption and conversion expenses, £19,000.

Additional details of the financial operations of the Commonwealth Railways to 1958–59 are given in Chapter XIV.—Transport and Communication (*see pp. 533–5*).

10. *Territories.*—The following table shows the expenditure on account of Commonwealth Territories for the years 1938–39 and 1954–55 to 1958–59. The Australian Capital Territory is administered by the Department of the Interior, and the Department of Territories controls the Northern Territory and the external territories. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in the annual bulletin, *Finance, Part I.—Public and Private Finance*

COMMONWEALTH TERRITORIES : EXPENDITURE.
(£'000.)

Territory.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Administration and Maintenance of Services—</i>						
Australian Capital Territory(a)	637	2,786	2,663	3,062	3,359	3,971
Northern Territory (a) ..	403	2,829	3,275	3,810	4,487	4,959
Papua	49	7,322	8,623	9,581	11,383	11,619
New Guinea	6					
Norfolk Island	5	34	30	37	33	31
Cocos (Keeling) Islands .. ..	..	..	12	20	26	36
<i>Total</i>	<i>1,100</i>	<i>12,971</i>	<i>14,603</i>	<i>16,510</i>	<i>19,288</i>	<i>20,616</i>
<i>Capital Works and Services—</i>						
Australian Capital Territory(a)	244	3,342	5,181	4,957	8,394	11,098
Northern Territory(a) ..	495	1,818	2,861	2,798	3,300	3,678
Papua and New Guinea .. ..	..	8	5	215	8	87
Cocos (Keeling) Islands .. ..	..	..	2	57	47	43
<i>Total</i>	<i>739</i>	<i>5,168</i>	<i>8,049</i>	<i>8,027</i>	<i>11,749</i>	<i>14,906</i>

(a) Excludes Railways, see para 9 (iii) page 834.

11. **Capital Works and Services.**—In the following table, details are given of Commonwealth expenditure on capital works and services during each of the years 1938-39 and 1954-55 to 1958-59. The table covers all expenditure on capital works and services made from the Consolidated Revenue Fund, the Loan Fund and Trust Funds.

COMMONWEALTH EXPENDITURE ON CAPITAL WORKS AND SERVICES FROM REVENUE, TRUST AND LOAN FUNDS.
(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
<i>Defence and War—</i>						
Navy	2,076	11,746	11,288	5,602	9,814	7,504
Army	1,547	14,033	12,467	10,138	10,732	15,831
Air Force	1,538	2,587	3,013	3,007	3,256	4,632
Munitions and other	1,173	4,637	11,711	19,669	10,958	7,014
<i>Repatriation Services—</i>						
War Service Homes	105	29,999	30,000	30,000	35,000	35,000
Other .. ..	..	132	242	167	206	308
Postmaster-General's Department ..	3,849	25,837	28,969	30,715	34,807	36,354
Broadcasting Services .. ..	..	273	817	2,697	1,583	1,407
<i>Railways—</i>						
Commonwealth	142	3,099	2,669	3,422	2,543	1,239
<i>Territories—</i>						
Australian Capital Territory	488	3,338	5,177	4,954	8,390	11,095
Northern Territory	244	1,818	2,861	2,798	3,300	3,678
Papua-New Guinea .. ..	..	8	5	215	8	87
Cocos (Keeling) Islands .. ..	..	..	2	57	47	43
<i>Other—</i>						
Ships, yards and docks	-300	3,228	3,589	1,343	..	..
Civil Aviation	419	3,657	3,881	3,657	4,098	5,688
Snowy Mountains Scheme .. ..	..	13,200	15,146	18,000	18,350	24,000
Immigration .. ..	..	208	319	253	297	270
Health	35	383	639	384	549	678
Subscriptions to Capital(a) .. ..	..	1,000	1,200	1,500	1,750	4,750
Advances(b) .. ..	..	2,403	205	432	1,297	230
All other works, buildings, etc.(c) ..	243	4,953	5,887	6,919	10,527	6,149
<i>Total</i>	<i>11,539</i>	<i>126,539</i>	<i>140,087</i>	<i>145,929</i>	<i>157,512</i>	<i>165,957</i>
<i>Source of Funds—</i>						
Consolidated Revenue Fund	6,715	126,546	140,096	145,938	157,522	166,024
Loan Fund	1,598	-7	-9	-9	-10	-67
Trust Funds(d)	3,246	..	..	..	..	..
<i>Total</i>	<i>11,559</i>	<i>126,539</i>	<i>140,087</i>	<i>145,929</i>	<i>157,512</i>	<i>165,957</i>

(a) Excludes Commonwealth New Guinea Timbers Ltd. included under Territories. (b) Excludes Overseas Telecommunications Commission included under Postmaster-General's Department. (c) Revised to exclude Grants to States for Railway Standardization. (d) From National Defence Contributions Trust Account and other trust funds.

NOTE.—Minus sign (–) indicates excess of credits or repayments over expenditure.

12. **Payments to or for the States.**—(i) *General.* An outline of the provisions of the Constitution requiring the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Official Year Book (see No. 37, pp. 633 to 638). In the following paragraphs, reference is made to the arrangements at present in operation.

(ii) *Amounts Paid.* (a) *Year 1958-59.* The table below shows particulars of the amounts paid to each of the States as grants for the several purposes referred to in subsequent paragraphs:—

COMMONWEALTH PAYMENTS TO OR FOR THE STATES, 1958-59.(a)
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
Financial Agreement—							
Interest on States' Debts	2,918	2,127	1,096	704	473	267	7,585
Sinking Fund on States' Debts (b)	1,894	1,230	671	715	526	350	5,386
Special Grants				5,250	11,100	4,400	20,750
Tax Reimbursement Grants	64,785	46,475	27,158	16,166	13,773	6,190	174,547
Special Financial Assistance	11,298	8,104	4,735	2,818	2,403	1,079	30,437
Commonwealth Aid Roads (c)	9,130	5,843	6,390	3,731	6,492	1,663	33,249
Commonwealth Aid Roads—Special Assistance	800	700	500	325	475	150	2,950
Tuberculosis Act 1948—Reimbursement of Capital Expenditure	372	45	664	70	257	4	1,412
Mental Institutions—Contribution to Capital Expenditure	197	620	118	122	17	46	1,120
Western Australia Waterworks Grant					524		524
Coal Mining Industry—Long Service Leave (c)	413	1	75		27	9	525
Encouragement of Meat Production			16				16
Grants to Universities	2,927	1,313	805	664	613	597	6,919
Cattle Tick Control	578						578
Tobacco Industry Assistance	2	3	6		4		15
Dairy Industry Extension Grant	72	80	70	15	13	11	261
Expansion of Agricultural Advisory Services	69	60	49	22	22	14	236
Development of North Western Australia					171		171
Grants for Railway Standardization (d)							1,308
Total	95,455	66,601	42,353	30,602	36,890	14,780	287,989

(a) Excludes relief to primary producers and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund. (d) Grants only—excludes repayable advances. The allocation of the Commonwealth expenditure of £1,308,000 as between the States is not available.

(b) 1938-39 and 1954-55 to 1958-59. The following table shows particulars of payments by the Commonwealth to or on behalf of the States during each of these years:—

COMMONWEALTH PAYMENTS TO OR FOR THE STATES.(a)
(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Financial Agreement—						
Interest on States' Debts	7,585	7,585	7,585	7,585	7,585	7,585
Sinking Fund on States' Debts (b)	1,478	3,947	4,310	4,640	5,065	5,386
Special Grants	2,020	12,300	18,500	18,500	19,500	20,750
Tax Reimbursement Grants		130,046	141,578	154,622	165,820	174,547
Special Financial Assistance		19,902	15,348	19,405	24,145	30,437
Additional Financial Assistance					5,000	
Grants for Road Construction, etc.	4,266	21,461	26,519	31,269	31,664	33,249
Commonwealth Aid Roads—Special Assistance					2,950	2,950
Tuberculosis Act 1948—Reimbursement of Capital Expenditure		1,709	1,758	2,381	2,142	1,412
Mental Institutions—Contribution to Capital Expenditure			773	1,248	1,256	1,120
Local Public Works—Interest and Sinking Fund	100					
Youth Employment	200					
Western Australian Waterworks		366	682	462	677	524
Coal Mining Industry—Long Service Leave (c)		600	565	597	590	525
Imported Houses—Grants		88		2		
Contribution to South Australia—Port Augusta to Port Pirie Railway	20	20	20	20		
Encouragement of Meat Production		261	303	134	98	16
Grants to Universities		1,544	1,651	2,262	3,074	6,919
Cattle Tick Control	70	250	552	675	536	578
Tobacco Industry Assistance	10	12	15	21	15	15
Dairy Industry Extension Grant		230	228	237	219	261
Expansion of Agricultural Advisory Services		193	237	270	265	236
Eradication of Argentine Ants					1	
Development of North Western Australia						171
Grants for Railway Standardization (d)		423	283	280	749	1,308
Total	15,749	200,937	220,907	244,610	271,351	287,989

(a) Excludes relief to primary producers and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund. (d) Grants only—excludes repayable advances.

Particulars of special Commonwealth grants for the relief of primary producers are not included in the foregoing tables. For details *see* Chapter XXII.—Agricultural Production. *See also* para. 4, Subsidies and Bounties, p. 828 and para. 13, Other Expenditure, p. 840.

(iii) *Financial Agreement.* Details of the Financial Agreement between the Commonwealth and the States are given in Official Year Book No. 37, pages 685 to 690. Under this Agreement, the Commonwealth undertook to contribute £7,584,912 per annum towards interest payable on the State Debts for a period of 58 years from 1st July, 1927. This amount is to be distributed among the States as follows:—New South Wales, £2,917,411; Victoria, £2,127,159; Queensland, £1,096,235; South Australia, £703,816; Western Australia, £473,432; Tasmania, £266,859.

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910, as compensation for the States relinquishing, after Federation, the right to levy Customs and Excise Duties.

In addition, under the Financial Agreement, the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State Debts. Details of these payments are given in Division D of this Chapter, § 2, page 857.

(iv) *Special Grants.* The Constitution provides in Section 96 for the granting of special financial assistance to the States. Prior to 1933, financial assistance of varying amounts was granted by the Commonwealth to South Australia, Western Australia and Tasmania. Details of this may be found in earlier issues of the Official Year Book (*see* No. 40, p. 695).

In 1933, the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications have been received from South Australia, Western Australia and Tasmania each year from 1933 onwards and the recommendations of the Commission in respect of the years 1938–39 and 1955–56 to 1959–60 are shown in the following table. Commencing with 1949–50, the Commission has divided the grants recommended into two parts. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1959–60 include an estimate of the indispensable need of the claimant State for 1959–60 and an adjustment to the estimated grant for 1957–58.

COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED.
(£'000.)

Particulars.	1938–39.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
<i>South Australia—</i>						
Estimated grant	1,040	5,940	5,760	4,858	5,201	..
Adjustment (a) .. ..	..	—540	40	842	49	399
<i>Net grant recommended</i> ..	<u>1,040</u>	<u>5,400</u>	<u>5,800</u>	<u>5,700</u>	<u>5,250</u>	<u>399</u>
<i>Western Australia—</i>						
Estimated grant	570	8,875	9,102	9,828	9,758	3,149
Adjustment (a) .. ..	..	25	98	322	1,342	351
<i>Net grant recommended</i> ..	<u>570</u>	<u>8,900</u>	<u>9,200</u>	<u>10,150</u>	<u>11,100</u>	<u>3,500</u>
<i>Tasmania—</i>						
Estimated grant	410	4,384	3,657	4,466	4,414	2,597
Adjustment (a) .. ..	..	—184	—157	—816	—14	803
<i>Net grant recommended</i> ..	<u>410</u>	<u>4,200</u>	<u>3,500</u>	<u>3,650</u>	<u>4,400</u>	<u>3,400</u>
Grand Total	<u>2,020</u>	<u>18,500</u>	<u>18,500</u>	<u>19,500</u>	<u>20,750</u>	<u>7,299</u>

(a) Adjustment to estimated grant paid two years previously.

(v) *Tax Reimbursement Grants.* Details of the States Grants (Income Tax Reimbursement) Act 1942 and the States Grants (Entertainments Tax Reimbursement) Act 1942 are given in earlier issues of the Official Year Book (*see* No. 37, pp. 635 to 637). These Acts provided for grants to the States as compensation for vacating the fields of Income Tax and Entertainments Tax. Grants under these Acts ceased after 1945–46 and were replaced by grants under the States Grants (Tax Reimbursement) Act 1946–1948.

This Act provided for reimbursement grants of certain specified amounts to be paid to the States during 1946–47 and 1947–48. For 1948–49 and subsequent years, the grants

were assessed on the aggregate paid in 1947–48 (£45,000,000) increased in accordance with a formula based on increases in population and average wages. Details of the formula and of the treatment of arrears of State income taxes were given in earlier issues of the Official Year Book (see No. 40, p. 696).

In 1950–51, an amount of £5,000,000 was paid to the States under the States Grants (Additional Tax Reimbursement) Act 1950. As this was considered a non-recurring grant, the formula mentioned above was not amended.

(vi) *Special Financial Assistance Grants.* During the years 1954–55 to 1958–59, there were heavy additions to the financial needs of the States and special assistance grants amounting to £21,915,000, £19,902,000, £15,348,000, £19,405,000, £24,145,000 and £30,437,000 respectively were made. For details of amounts paid to each State during 1958–59 see page 836 and for other years see earlier issues of the Official Year Book or the annual bulletin *Finance, Part I, Public and Private Finance*.

(vii) *Additional Financial Assistance.* The States Grants (Additional Assistance) Act 1958 provided for the payment of £5,000,000 from the Consolidated Revenue Fund for financial assistance to the States.

(viii) *Grants for Road Construction.* (a) *Main Roads Development Act 1923–25, Federal Aid Roads Acts 1926, 1931 and 1936, Federal Aid Roads and Works Act 1937, Commonwealth Aid Roads and Works Act 1947–1949 and Commonwealth Aid Roads Act 1950.* Details of these Acts are given in earlier issues of the Official Year Book (see No. 38, pp. 787–8 and No. 41, p. 62) and in the annual bulletin *Finance, Part I, Public and Private Finance*.

(b) *The Commonwealth Aid Roads Act 1954* repealed the Commonwealth Aid Roads Act 1950 and provided for payment to the States, for a period of five years from 1st July, 1954, of an amount equivalent to 7d. a gallon on all petrol, except aviation spirit, which is entered for home consumption and which is subject to Customs and Excise duties as specified in Customs Tariff Items 229c and 229d(2) and Excise Tariff Item 11. Out of this amount, the following grants are to be made to the States for construction and maintenance of roads and the purchase of roadmaking plant:—

(a) Sixty per cent. of the amount, less £900,000 per annum, for expenditure on roads, and

(b) Forty per cent. of the amount for expenditure on roads in rural areas other than highways, trunk or main roads.

The States may spend up to £1,000,000 per annum from the Commonwealth road grants on works connected with transport by road or water. Five per cent. of the grants is payable to Tasmania and the remainder is to be divided among the other five States, three-fifths according to population and two-fifths according to area. In addition, the Commonwealth may spend each year £800,000 on strategic roads and £100,000 on the promotion of road safety practices.

An amendment to the Commonwealth Aid Roads Act 1954 increased the allocation for road safety purposes from £100,000 to £150,000 a year as from 1st July, 1955, and the allocation to the States from 7d. to 8d. a gallon of petrol as from 1st July, 1956.

(c) *The Commonwealth Aid Roads (Special Assistance) Act 1957.* Under the Commonwealth Aid Roads (Special Assistance) Act 1957, a sum of £3,000,000 has been appropriated for each of the years 1957–58 and 1958–59. Of this amount, £2,950,000 is apportioned as assistance to the States:—

(i) for the construction, reconstruction, maintenance and repair of roads or on the purchase of road-making plant; or

(ii) for making payments to local authorities for the construction, reconstruction, maintenance and repair of roads or for the purchase of road-making plant; and £50,000 to the Commonwealth for the construction, reconstruction, maintenance and repair of roads serving Commonwealth purposes or on the purchase of road-making plant.

(ix) *Tuberculosis Act 1948.* Reimbursement of Capital Expenditure. The Tuberculosis Act 1948 provided for the reimbursement by the Commonwealth of capital expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis, as from 1st July, 1948.

(x) *States Grants (Mental Institutions) Act 1955.* This Act provides for financial assistance to the States for capital expenditure on mental institutions to a maximum amount of £10,000,000. Each State is entitled to one-third of expenditure on buildings or equipment of a mental institution made on or after 1st July, 1955.

(xi) *Other Payments.* (a) *Western Australian Waterworks.* The Western Australia Grant (Water Supply) Act, 1948, provides for grants to Western Australia not exceeding an aggregate of £2,150,000 for the development of the Agricultural Areas, Great Southern Towns and Goldfields Water Supply schemes. The amount provided by the Commonwealth is not to exceed half the total expenditure on the scheme.

(b) *Coal Mining Industry—Long Service Leave.* To provide funds for the payment for long service leave in the coal mining industry, the Commonwealth imposed an excise duty of 6d. a ton on coal produced from 1st November, 1949. The rate of duty was raised to 7½d. a ton from 26th August, 1951, and to 8d. a ton from 30th May, 1952. The proceeds of this excise duty are paid to a trust fund out of which the States are reimbursed for expenditure incurred in granting long service leave to employees in the coal mining industry.

(c) *Imported Houses.* A subsidy is paid to the States for houses imported by a State or a housing authority of a State after 12th October, 1949. The amount of the subsidy is the amount by which the cost of imported houses exceeds the cost of building comparable houses from local materials. The subsidy is limited to £300 a house and in aggregate to 30,000 houses or £9,000,000.

(d) *Contribution to South Australia—Port Augusta to Port Pirie Railway.* The Port Augusta to Port Pirie Railway Act 1935–1950 approved an agreement between the Commonwealth and South Australia to provide for the extension of the Trans-Australian Railway by the construction of a railway in South Australia from Port Augusta to Port Pirie. As a contribution towards reimbursing South Australia for the cost of the section to be constructed by the State, and for any additional expense incurred by the State in carrying out the Agreement, the Act provided for a payment by the Commonwealth to the State of South Australia of £20,000 per annum for twenty years, the first payment being made in 1937–38 after the opening of the Railway and the final payment in 1956–57.

(e) *Encouragement of Meat Production.* To develop meat production in Queensland and Western Australia, grants are made to these States for the provision and improvement of roads and other facilities for the movement of live-stock. Provision is made for the Commonwealth to meet the cost of the construction and improvement of certain specified roads in both States and the construction of eight cattle loading and unloading points in Queensland. Provision is also made for the Commonwealth to meet half the cost of improving watering facilities on specified stock routes in both States. The amount of the grants for improving watering facilities on stock routes is limited to £75,000 in Queensland and £31,500 in Western Australia. These limits were extended as from 20th April, 1954, to £150,000 in Queensland and £50,000 in Western Australia.

(f) *Grants to Universities.* Payments to the States for universities were first introduced in 1951–52 under the States Grants (Universities) Act 1951, and were continued under similar legislation passed in 1953, 1955, 1956 and 1957. Following on the Government's acceptance of the main recommendations of the Committee on Australian Universities, the provisions of the 1957 Act relating to financial assistance for 1958 were superseded by the States Grants (Universities) Act 1958, which operated from 1st January, 1958.

This new legislation authorized the Commonwealth to make payments to the States for universities of up to £21,400,000 over the three calendar years 1958 to 1960, inclusive, where certain conditions have been satisfied. These payments include increased contributions towards the running expenses of universities, new grants for capital works and equipment and new emergency grants.

(g) *Cattle Tick Control.* Since 1926–27, the Commonwealth has subsidized the cost of eradication and control of cattle tick in New South Wales. From 1950–51, the subsidy was increased on a £1 for £1 basis up to an agreed maximum. The payments are charged to the departmental expenditure of the Department of Health.

(h) *Tobacco Industry Assistance.* The Commonwealth makes a grant for tobacco research of up to £15,000 per annum, paid to the tobacco producing States on a £1 for £1 basis.

(i) *Dairy Industry Extension Grant.* The Commonwealth provides financial assistance, with a maximum annual limit of £250,000, to promote improved farm practices in the dairy industry. The grants are charged to the departmental expenditure of the Department of Primary Industry.

(j) *Expansion of Agricultural Advisory Services.* These payments were introduced in 1952–53 to encourage expansion of agricultural advisory services by the State Departments of Agriculture and to promote increased farm efficiency. The payments are charged to the departmental expenditure of the Department of Primary Industry.

(k) *Grants for Railway Standardization.* (i) *South Australia.* Under the Railway Standardization (South Australia) Agreement Act 1949, the Commonwealth is providing funds for the conversion of lines in the south-eastern division of the State as an initial step towards eventual standardization of 4' 8½" gauge. The State is to repay three-tenths of the cost of this work over a period of 50 years and is to bear the full cost of subsequent conversion from broad to standard gauge.

(ii) *Albury to Melbourne.* Under the Railway Standardization (New South Wales and Victoria) Agreement Act 1958 the Commonwealth has agreed to provide funds for the construction of a standard gauge rail link between Albury and Melbourne on the basis that the States of Victoria and New South Wales will each bear 15 per cent. of the cost by instalments over a period of 50 years.

The total expenditure on Railway Standardization (the 30 per cent. advances to the States and the 70 per cent. grants to the States), is charged to the Capital Works and Services vote of the Department of Shipping and Transport.

13. *Other Expenditure.*—Expenditure under this item represents the proceeds of special industry taxes and profits from marketing schemes which are paid to trust funds or other authorities for the purposes of the industries concerned. Advance payments in respect of sales of uranium paid to the Atomic Energy Commission are also included.

Information relating to the taxes levied is given in sub-section II.—Revenue, of this section (*see p. 820*). Details of expenditure from the trust funds are given in § 3, Commonwealth Trust Funds. Details of the price stabilization and other assistance schemes for primary industries may be found in Chapter XXII.—Agricultural Production. Details of expenditure from the Consolidated Revenue Fund during the last five years are given in the following table.

**OTHER EXPENDITURE : RECEIPTS AND EXPENDITURE FROM
COMMONWEALTH CONSOLIDATED REVENUE FUND.**

(£'000.)

Receipts from—	Expenditure on—	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
<i>Taxes—</i>						
Export Charges ..	Export Control Boards (a) ..	301	414	375	390	566
Stevedoring Industry Charge ..	Stevedoring Industry Board ..	998	973	1,926	3,337	4,572
Tobacco Charge ..	Tobacco Industry (b) ..	..	5	41	61	72
Wheat Export Charge ..	Wheat Industry Price Stabilization (c) ..	5,063	4,294	..	443	1,211
Wheat Tax ..	Wheat Research (d) ..	..	..	..	185	207
Wool Tax ..	Wool Use Promotion and Research ..	784	851	979	1,328	1,389
Dairy Produce Levy ..	Dairy Produce Research and Sales Promotion ..	..	..	..	..	151
<i>Total</i>	<i>.. ..</i>	<i>7,146</i>	<i>6,537</i>	<i>3,321</i>	<i>5,744</i>	<i>8,168</i>
<i>Other—</i>						
Advance Payments—	Atomic Energy Commission ..	1,082	30	..	..	..
Sales of Uranium ..	Papua and New Guinea Copra Fund ..	..	836	..	..	..
Australian New Guinea Production Trust Account ..	Dried Fruits Board ..	..	107	147	..	..
Dried Vine Fruits Support Price Agreement—United Kingdom Government ..	Australian Meat Board—Meat Export Fund ..	..	..	..	447	..
Australian Meat Board—General Meat Account ..	Australian Meat Board ..	..	153	3,254	5,927	..
Meat Export Deficiency Payments — United Kingdom Government ..	Hide and Leather Industries Trust Fund ..	5	..	..	..	..
Hide and Leather Industries — Moneys paid by Hide and Leather Industries Board ..	Wheat Research (d) ..	..	..	..	285	..
Australian Wheat Board —Undistributed balances from Wheat Pools ..	Japanese Assets Distribution Trust Fund ..	..	..	696	..	..
Treaty of Peace with Japan—Article 16 receipts ..	Repayment of Wheat Export Charge ..	..	..	192	5	..
Wheat Prices Stabilization Fund ..	<i>.. ..</i>	<i>1,087</i>	<i>1,126</i>	<i>4,289</i>	<i>6,664</i>	<i>..</i>
<i>Total</i>	<i>.. ..</i>	<i>8,233</i>	<i>7,663</i>	<i>7,610</i>	<i>12,408</i>	<i>8,168</i>
<i>Grand Total</i>	<i>.. ..</i>	<i>8,233</i>	<i>7,663</i>	<i>7,610</i>	<i>12,408</i>	<i>8,168</i>

(a) Paid to Apple and Pear Export Fund, Canned Fruits Export Fund, Dairy Produce Export Fund, Dried Fruits Export Fund, Egg Export Fund and Wine Export Fund. (b) Paid to Tobacco Industry Trust Fund. (c) Paid to Wheat Prices Stabilization Fund. (d) Paid to Wheat Research Fund.

§ 3. Commonwealth Trust Funds.

1. **Receipts, Expenditure and Balances, 1958-59.**—The following table shows the opening and closing balances and receipts and expenditure of some of the more important Trust Funds of the Commonwealth for the year ended 30th June, 1959.

COMMONWEALTH TRUST FUNDS : RECEIPTS, EXPENDITURE AND BALANCES, 1958-59.

(£'000.)

Fund.	Balance at 30th June, 1958.	Year ended 30th June, 1959.		Balance at 30th June, 1959.
		Receipts.	Expenditure.	
Canadian Loan	6,675	416	133	6,958
Coal Mining Industry Long Service Leave	1,834	558	335	2,057
Coinage .. .. .	..	1,383	1,383	..
Commonwealth Aid Roads	4,076	34,199	36,990	1,285
Commonwealth Aid Roads (Supplementary)	2,295	..	171	2,124
Defence Forces Retirement Benefits ..	10,112	3,037	1,903	11,246
Enemy Subjects	70	14	12	72
Insurance Deposits	5,286	842	537	5,591
International Development and Relief ..	221	365	419	167
Korean Operations Pool	13,500	1,950	3,404	12,046
Lend Lease Settlement	1,132	50	146	1,036
Loan Consolidation and Investment Reserve	299,178	38,800	100,605	237,373
National Debt Sinking Fund	230,652	72,267	95,199	207,720
National Welfare	197,020	280,204	278,227	198,997
Parliamentary Retiring Allowances ..	294	88	46	336
Public Trustee and Custodian	10	28	28	10
Superannuation	56,115	13,875	7,146	62,844
Swiss Loan	13,554	561	..	14,115
Temple Society	451	13	4	460
Tobacco Industry	49	147	121	75
War Service Homes .. .. .	..	36,130	36,130	..
War Service Homes—Insurance	544	322	169	697
Wheat Industry Stabilization	297	..	..	297
Wheat Prices Stabilization	9,362	1,573	398	10,537
Wheat Research	447	353	249	551
Wine Research	426	19	10	435
Wool Disposals Profit	310	54	17	347
Wool Research	6,490	1,720	1,549	6,661
Other	27,633	391,203	392,774	26,062
Total	888,033	880,171	958,105	810,099

2. **Summary, 1938-39 and 1954-55 to 1958-59.**—In the following table, the balances and total receipts and expenditure of the Trust Funds are shown for each of these years.

COMMONWEALTH TRUST FUNDS.

(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Balances brought forward ..	25,609	647,290	733,398	818,390	904,447	888,033
Receipts	84,167	792,431	843,177	907,151	910,244	880,171
Expenditure	85,550	706,323	758,185	821,094	926,658	958,105
Balance carried forward ..	24,226	733,398	818,390	904,447	888,033	810,099

§ 4. Commonwealth Loan Fund.

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Official Year Book (*see* No. 37, p. 640). In the following table, details are given of the net expenditure from the Commonwealth Loan Fund for the years 1938–39 and 1954–55 to 1958–59 and of the aggregate expenditure to 30th June, 1959. The figures shown represent “net” loan expenditure, i.e., after adjustments have been made for refunds of amounts expended in earlier years.

COMMONWEALTH NET EXPENDITURE FROM LOAN FUND.
(£'000.)

Particulars.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.	Total to 30th June, 1959.
War Loans—							
Defence and War (1914–18, 1939–45) Services .. ..	..	(a) 4,039	(a) 7,622	(a) 8,019	(a) 8,703	(a) 5,700	2,035,762
Defence Services—							
General Services, Works, Armaments, etc. .. ..	..	..	..	..	..	37,308	37,308
Other Loans—							
Capital Works and Services—							
Defence (b)	1,912	..	..	..	..	— 2	8,680
Repatriation Services (b)—							
War Service Homes (b) .. ..	..	..	..	..	..	..	7,329
Other .. ..	..	..	..	..	..	..	47
Postmaster-General's Department	— 1	— 2	..	— 6	— 3	2	40,415
Broadcasting Services .. ..	..	..	..	..	..	..	104
Railways .. ..	..	— 1	— 5	..	— 3	— 42	13,699
Territories (c)	— 7	— 4	— 4	— 3	— 4	— 3	8,706
Other—							
Ships, Yards and Docks	— 305	..	..	..	..	..	7,694
Civil Aviation .. ..	..	..	..	..	..	..	213
Immigration .. ..	..	..	..	..	..	..	1,681
Emergency Wheat Storage .. ..	..	..	3,182	— 60	— 30	— 21	3,071
All other works, buildings, etc. ..	— 1	..	..	..	..	— 1	4,223
Other Purposes—							
Assistance to States—							
Farmers' Debt Adjustment	2,000	..	..	..	..	..	7,967
Housing .. ..	..	29,150	33,200	32,150	33,160	35,810	341,679
Other	— 4	..	..	..	..	..	5,976
Wheat Bounty .. ..	..	..	..	..	..	..	3,430
Loan (Qantas Empire Airways) ..	..	..	..	3,899	3,311	6,033	13,243
Loan (Australian National Airlines Commission) .. ..	..	..	..	..	..	1,337	1,337
<i>Total Capital Works and Services and Other Purposes ..</i>	<i>3,594</i>	<i>29,143</i>	<i>36,373</i>	<i>35,980</i>	<i>36,431</i>	<i>43,113</i>	<i>469,494</i>
International Bank Dollar Loan (d) .. ..	..	23,575	19,369	5,367	14,565	7,492	137,645
Swiss Loan (e) .. ..	..	5,930	..	..	..	..	11,722
Canadian Loan (f) .. ..	..	..	6,459	..	..	..	6,459
Grand Total	3,594	62,687	69,823	49,366	59,699	93,613	2,698,390

(a) Financial assistance to the States in connexion with War Service Land Settlement. (b) Excludes amounts charged to War Loan Fund. (c) Includes administration and other public buildings, Australian Capital Territory. (d) Payment to National Debt Sinking Fund. *See* p. 874. (e) Payment to Swiss Loan Trust Account. *See* p. 872. (f) Payment to Canadian Loan Trust Account. *See* p. 872.

NOTE.—Minus sign (—) indicates excess of repayments to Loan Fund.

Information relating to the Public Debt of the Commonwealth is given in Division D Commonwealth and State Public Debt, of this chapter.

B. STATE FINANCE.

§ 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States, allowances must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure, and debt of the individual States are difficult, owing to the fact that functions which in

one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in making comparisons, and the particulars contained in this Chapter should be read with those contained in Chapter XIX.—Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned with rendering public services, such as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. Accounts of State Governments.—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. All revenue (except certain items paid into special funds) collected by a State is paid into its Consolidated Revenue Fund, from which payments are made under authority of an annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a special act.

Figures in § 2 below relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These latter are as follows:—Railways, Tramways and Omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The Trust Fund comprises all moneys held in trust by the Government, and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. Inter-relation of Commonwealth and State Finances.—A statement in some detail, covering the inter-relation of Commonwealth and State Finances during the period from the inception of Federation to the passing of the Financial Agreement Act 1928, was published in Official Year Book No. 22, pages 379–380. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Official Year Book from year to year (*see also* pp. 857–58).

§ 2. State Consolidated Revenue Funds.

I.—Revenue.

1. General.—The principal sources of State revenue are:—

(a) Taxation; (b) The business undertakings controlled by the State Governments; (c) Sale of and rental from crown lands; (d) Payments by Commonwealth Government under the Financial Agreement, Special Grants and Tax Reimbursement Acts, etc.; (e) Interest on advances; and (f) Miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of business undertakings, the principal contributors being the government railways and tramways. Next in magnitude are Commonwealth payments under the Tax Reimbursement Acts, followed in order by taxation receipts, Commonwealth special financial assistance and special grants, and lands receipts. With the introduction of uniform taxation by the Commonwealth in 1942–43, the States vacated the fields of income and entertainment taxation, and payments by the Commonwealth under the Income and Entertainments Tax Reimbursements Acts and, from 1946–47, under the Tax Reimbursement Act, replaced revenue previously received from those sources. The Commonwealth, however, ceased to impose Entertainments Tax in 1953–54 and in the same year Victoria, Western Australia and Tasmania re-imposed an Entertainments Tax.

2. **Revenue Received.**—The following table shows particulars of the total amounts, and the amounts per head of population, of consolidated revenue received by the several States during the years 1938-39 and 1954-55 to 1958-59.

STATE CONSOLIDATED REVENUE.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total
TOTAL REVENUE. (£'000.)							
1938-39 ..	51,099	26,985	19,330	12,304	10,950	3,615	124,283
1954-55 ..	195,438	116,789	73,820	48,684	46,070	14,495	495,296
1955-56 ..	204,399	123,152	75,669	55,352	49,612	17,827	526,011
1956-57 ..	223,829	133,254	85,158	61,561	54,331	18,801	576,934
1957-58 ..	231,510	142,336	87,955	66,342	57,054	19,986	605,183
1958-59 ..	239,769	151,248	99,007	68,030	60,068	21,837	639,959
PER HEAD OF POPULATION. £ s. d.							
1938-39 ..	18 13 7	14 8 3	19 3 6	20 13 6	23 9 0	15 4 2	17 19 5
1954-55 ..	56 9 10	46 18 9	55 14 0	60 5 10	70 19 10	46 6 3	54 15 6
1955-56 ..	57 19 11	48 0 4	55 18 10	66 6 8	74 3 1	55 17 0	56 15 6
1956-57 ..	62 7 8	50 9 6	61 13 9	71 9 4	79 7 5	57 12 11	60 17 1
1957-58 ..	63 5 8	52 11 6	62 13 7	74 17 7	81 13 6	59 16 5	62 9 5
1958-59 ..	64 7 0	54 9 9	69 8 7	74 18 0	84 6 8	63 19 9	64 14 3

(a) See § 1, para. 2, p. 843.

3. **Sources of Revenue.**—(i) *General.* Classifying the revenue of the several States in the manner indicated in para. 1 above, particulars for the year 1958-59 were as follows:—

STATE CONSOLIDATED REVENUE : SOURCES, 1958-59.

Source of Revenue.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL REVENUE. (£'000.)							
Taxation(b) ..	37,472	30,332	11,229	10,217	5,377	3,870	98,497
Business Undertakings ..	92,186	46,258	35,129	20,303	18,620	..	212,496
Lands ..	4,332	2,800	3,276	559	1,392	531	12,890
Interest, n.e.i. ..	1,770	5,585	3,725	5,523	2,532	3,940	23,075
Commonwealth Grants—							
Tax Reimbursements ..	64,785	46,475	27,158	16,166	13,773	6,190	174,547
Other(c) ..	14,793	10,231	6,197	9,493	13,978	5,746	60,438
Commonwealth National							
Welfare Fund Payments(d)	5,918	1,093	2,335	802	576	301	11,025
Miscellaneous ..	18,513	8,474	9,958	4,967	3,820	1,259	46,991
Total ..	239,769	151,248	99,007	68,030	60,068	21,837	639,959
PER HEAD OF POPULATION. (£ s. d.)							
Taxation(b) ..	10 1 2	10 18 7	7 17 6	11 5 0	7 11 0	11 6 9	9 19 2
Business Undertakings ..	24 14 10	16 13 3	24 12 8	22 7 1	26 2 10	..	21 9 9
Lands ..	1 3 3	1 0 2	2 5 11	0 12 4	1 19 1	1 11 1	1 6 1
Interest, n.e.i. ..	0 9 6	2 0 3	2 12 3	6 1 7	3 11 1	11 10 11	2 6 8
Commonwealth Grants—							
Tax Reimbursements ..	17 7 9	19 13 3	19 0 11	17 16 0	19 6 9	18 2 10	18 9 5
Other(c) ..	3 19 5	0 15 4	4 6 11	10 9 0	19 12 6	16 16 9	5 5 10
Commonwealth National							
Welfare Fund Payments(d)	1 11 9	0 7 10	1 12 9	0 17 8	0 16 2	0 17 8	1 2 4
Miscellaneous ..	4 19 4	3 1 1	6 19 8	5 9 4	5 7 3	3 13 9	4 15 0
Total ..	64 7 0	54 9 9	69 8 7	74 18 0	84 6 8	63 19 9	64 14 3

(a) See § 1, para. 2, p. 843. (b) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (c) Includes payments under Financial Agreement, Special Grants, Special Financial Assistance, Grants to Universities, etc. (d) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

(ii) *Revenue from Taxation. (a) General.* The following tables show, for the year 1958-59, particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason, the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and represent a comprehensive statement of all taxation collections by the Government in each State. In this and the succeeding statements of taxation, the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Racing Tax" instead of under "Stamp Duties" and "Licences" respectively. Commonwealth payments under the State Grants (Tax Reimbursement) Act are not included.

STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS(a) 1958-59.

(£'000.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<i>Motor—</i>							
Registration Fees and Taxes	10,604	8,784	5,037	3,612	2,103	1,061	31,201
Drivers', etc., Licences	1,273	570	(b) 223	327	157	93	2,643
Other	3,751	2,703	1,328	74	65	140	8,061
<i>Total Motor</i>	<i>15,628</i>	<i>12,057</i>	<i>6,588</i>	<i>4,013</i>	<i>2,325</i>	<i>1,294</i>	<i>41,905</i>
Probate and Succession Duties	12,043	7,838	3,377	2,145	1,091	683	27,177
Stamp Duties, n.e.i.	12,559	8,485	3,411	1,619	1,481	762	28,317
Land	6,205	4,661	1,412	1,397	1,238	511	15,424
Income (Arrears)	11	3	1	..	..	..	15
Liquor	3,692	2,908	983	201	446	253	8,483
Lotteries .. ..	..	2,849	338	..	..	247	3,434
Racing	2,800	2,321	397	1,032	627	363	7,540
Entertainments .. ..	..	1,370	..	..	291	185	1,846
Poker Machines Licence Fees	906	..	..	..	..	..	906
Licences, n.e.i.	162	285	184	73	65	9	778
Other .. ..	..	..	1,818	96	91	..	2,005
<i>Grand Total</i>	<i>54,006</i>	<i>42,777</i>	<i>18,509</i>	<i>10,576</i>	<i>7,655</i>	<i>4,307</i>	<i>137,830</i>

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue Fund or to other funds. (b) As from October, 1952, no charge has been made for drivers' licences. Instead an annual driving fee is charged upon registration of a vehicle.

Of the total taxation collections detailed above, the following were paid into special funds:—

STATE REVENUE FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS, 1958-59.

(£'000.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Motor	15,628	12,057	5,630	..	2,187	244	35,746
Stamp Duties, n.e.i. .. ..	..	220	..	..	..	..	220
Liquor .. ..	..	168	..	..	..	..	168
Lotteries .. ..	..	..	..	..	..	31	31
Racing .. ..	..	..	..	359	..	162	521
Poker Machines Licence Fees	906	..	..	..	..	..	906
Other .. ..	..	..	1,650	..	91	..	1,741
<i>Total</i>	<i>16,534</i>	<i>12,445</i>	<i>7,280</i>	<i>359</i>	<i>2,278</i>	<i>437</i>	<i>39,333</i>

The table hereunder shows, for the year 1958–59, the proportions of collections under individual classes of tax to the total taxation revenue:—

STATE REVENUE FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1958-59.
(Per cent.)

Tax.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Motor	28.94	28.18	35.59	37.94	30.36	30.03	30.40
Probate and Succession Duties	22.30	18.32	18.24	20.28	14.26	15.86	19.72
Stamp Duties, n.e.i.	23.25	19.84	18.43	15.31	19.35	17.69	20.54
Land	11.49	10.90	7.63	13.21	16.17	11.86	11.19
Income (Arrears)	0.02	0.01	..	..	..	..	0.01
Liquor	6.84	6.80	5.31	1.90	5.83	5.88	6.16
Lotteries .. .. .	..	6.66	1.83	..	..	5.73	2.49
Racing	5.18	5.42	2.15	9.76	8.19	8.44	5.47
Entertainments .. .. .	..	3.20	..	..	3.80	4.30	1.34
Poker Machines Licence Fees	1.68	..	..	..	..	..	0.66
Licences, n.e.i.	0.30	0.67	0.99	0.69	0.85	0.21	0.56
Other .. .. .	..	..	9.83	0.91	1.19	..	1.46
Grand Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(b) 1938–39 and 1954–55 to 1958–59. Prior to federation, customs and excise duties were the principal source of revenue from taxation. Thereafter, until the introduction of the uniform income tax scheme in 1942–43, the most productive State taxes were the various income taxes which, in 1941–42, included unemployment relief, State development and hospital taxes. Since 1941–42, the States have been reimbursed by the Commonwealth for the revenue lost by the discontinuance of these taxes. Details of the reimbursement grants are given on pages 836 and 844. Information relating to the State income taxes which were levied prior to 1942–43 may be found in earlier issues of the Official Year Book.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund, during the years 1938–39 and 1954–55 to 1958–59 are shown in the following table:—

STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL NET COLLECTIONS. (£'000.)							
1938–39(b) ..	20,263	12,023	8,657	4,199	3,597	1,779	50,518
1954–55 ..	32,079	27,497	13,644	7,920	5,210	3,136	89,486
1955–56 ..	34,931	30,004	14,724	8,497	5,670	4,175	98,001
1956–57 ..	43,195	34,960	15,666	9,734	6,493	4,487	114,535
1957–58 ..	48,552	40,111	17,371	10,173	7,761	4,086	128,054
1958–59 ..	54,006	42,777	18,509	10,576	7,655	4,307	137,830

PER HEAD OF POPULATION.
(£ s. d.)

1938–39(b) ..	7 8 2	6 8 5	8 11 6	7 1 1	7 14 1	7 9 8	7 6 1
1954–55 ..	9 5 5	11 1 1	10 5 11	9 16 2	8 0 7	10 0 4	9 17 11
1955–56 ..	9 18 3	11 14 0	10 17 8	10 3 7	8 9 6	13 1 7	10 11 7
1956–57 ..	12 0 9	13 4 10	11 7 0	11 6 0	9 9 9	13 15 2	12 1 8
1957–58 ..	13 5 5	14 16 4	12 7 7	11 9 8	11 2 3	12 4 7	13 4 4
1958–59 ..	14 9 11	15 8 3	12 19 7	11 12 10	10 15 0	12 12 5	13 18 9

(a) Excluding Commonwealth Tax Reimbursements.

(b) Includes Income Taxes.

The following table shows for the years 1938-39 and 1954-55 to 1958-59 the aggregate amounts collected by the several State Governments, under the various forms of State taxation and includes amounts paid to funds other than Consolidated Revenue.

STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS.(a)
(£'000.)

Tax.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Motor	6,961	27,783	28,919	33,539	37,520	41,905
Probate and Succession Duties	5,000	21,602	23,388	24,377	25,680	27,177
Stamp Duties, n.e.i. ..	3,466	16,027	18,181	21,336	24,527	28,317
Land	1,408	4,998	5,969	11,826	15,396	15,424
Income Taxes	29,796	(b) 52	(b) 74	(b) 23	(b) 33	(b) 15
Liquor	1,045	5,563	6,617	7,220	8,095	8,483
Lotteries	532	3,478	4,256	4,333	3,602	3,434
Racing	1,251	6,992	7,430	7,495	7,870	7,540
Entertainments	633	1,341	1,446	1,838	1,982	1,846
Poker Machines Licence Fees	..	..	..	764	835	906
Licences and all other ..	426	1,650	1,721	1,784	2,514	2,783
Total	50,518	89,486	98,001	114,535	128,054	137,830

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue or to other funds. Excludes Commonwealth Tax Reimbursements. (b) Arrears of State income taxes.

Details of taxation collections paid into special funds and included in the above table are shown below:—

STATE REVENUE FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS.
(£'000.)

Tax.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Unemployment Relief ..	1,119	..	..	..	..	..
Hospital	264	..	..	..	..	..
Motor	5,858	22,879	23,718	27,803	31,593	35,746
Stamp Duties, n.e.i. ..	..	181	180	190	188	220
Land .. .. .	..	..	..	100	100	..
Liquor	92	208	135	193	219	168
Lotteries .. .. .	..	..	101	82	60	31
Racing	83	549	596	596	573	521
Poker Machines Licence Fees	..	..	..	764	835	906
Other	173	847	864	846	1,510	1,741
Total	7,589	24,664	25,594	30,574	35,078	39,333

(iii) *Business Undertakings.* (a) 1958-59. A very large proportion of State gross revenue is made up of receipts from business undertakings under the control of the Governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply and, in addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the Governments of all States are included. For the year 1958-59, the revenue from these sources was £212,496,000 or 33.2 per cent. of the revenue from all sources. Details of revenue are as follows:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1958-59.
(£'000.)

Source.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Total.
Railways(b)	75,931	(c) 38,142	35,129	12,876	13,515	..	175,593
Tramways and Omnibuses	13,260	..	..	..	920	..	14,180
Harbours, Rivers, Lights ..	2,995	(d) 575	..	2,142	446	..	6,158
Water Supply, Sewerage, Irrigation and Drainage..	..	4,001	..	5,012	3,302	..	12,315
Electricity Supply .. .. .	..	2,654	..	..	..	..	2,654
Other .. .. .	..	886	..	273	437	..	1,596
Total	92,186	46,258	35,129	20,303	18,620	..	212,496

(a) Tasmanian transport services are under the separate control of the Transport Commission. (b) The following contributions to Railways revenue from Consolidated Revenue Fund are excluded—New South Wales, £1,000,000; South Australia, £4,650,000. (c) Includes electric tramways operated by the Railways Department. (d) Includes Harbour Trust Fund contribution, £403,000.

(b) 1938–39 and 1954–55 to 1958–59. The total revenue from business undertakings and the revenue per head in each State are shown in the following table:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.							
Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL REVENUE. (£'000.)							
1938–39 ..	24,676	11,649	7,642	4,937	5,633	(a) 511	55,048
1954–55 ..	87,929	44,021	30,805	17,807	16,695	..	197,257
1955–56 ..	89,496	44,160	30,404	18,435	17,405	..	199,900
1956–57 ..	95,836	44,393	35,583	19,484	19,057	..	214,353
1957–58 ..	91,153	43,775	34,135	20,778	17,751	..	207,592
1958–59 ..	92,186	46,258	35,129	20,303	18,620	..	212,496
PER HEAD OF POPULATION. (£. s. d.)							
1938–39 ..	9 0 5	6 2 6	7 11 7	8 5 10	12 1 4	(a) 2 3 0	7 19 2
1954–55 ..	25 8 4	17 13 10	23 4 10	22 1 1	25 14 7	..	21 16 4
1955–56 ..	25 7 10	17 4 4	22 9 7	22 1 10	26 0 4	..	21 11 6
1956–57 ..	26 14 2	16 16 4	25 15 6	22 12 5	27 16 9	..	22 12 2
1957–58 ..	24 18 4	16 3 5	24 6 6	23 9 1	25 8 3	..	21 8 7
1958–59 ..	24 14 10	16 13 3	24 12 8	22 7 1	26 2 10	..	21 9 9

(a) Includes Tasmanian transport services which were subsequently placed under the control of the Transport Commission.

In the table below, particulars of total State revenue from business undertakings for the various types of undertakings are shown for the years 1938–39 and 1954–55 to 1958–59:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS. (£'000.)						
Source.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Railways, Tramways and Omnibuses	48,134	179,878	181,185	194,753	185,817	189,773
Harbour Services	2,357	5,887	5,833	5,832	5,961	6,158
Water Supply, Sewerage, Irrigation and Drainage	2,543	7,872	8,997	9,903	11,835	12,315
Other	2,014	3,620	3,885	3,865	3,979	4,250
Total	55,048	197,257	199,900	214,353	207,592	212,496

(iv) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1958–59.

STATE LAND REVENUE, 1958–59. (£'000.)							
Source.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Sales ..	412	167	..	103	59	20	761
Conditional Purchases ..	212	..	..	3	136	..	351
Rentals (a) ..	2,325	446	3,110	205	289	31	6,406
Forestry ..	1,299	2,033	..	..	908	470	4,710
Other ..	84	154	166	248	..	10	662
Total ..	4,332	2,800	3,276	559	1,392	531	12,890

(a) Includes mining royalties, rents, etc.

The total land revenue for all States for the years 1938-39 and 1954-55 to 1958-59 respectively was:—£4,144,000, £12,787,000, £13,937,000, £15,489,000, £15,050,000 and £12,890,000.

(v) *Commonwealth Grants.* Commonwealth grants to the States represent a considerable proportion of the States' Revenue. In 1958-59, the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was £234,985,000 (36.7 per cent.). Details for 1958-59 were as follows:—Contribution towards interest on States' debts under the Financial Agreement, £7,585,000, special grants to the States of South Australia, Western Australia and Tasmania, £20,750,000, tax reimbursements, £174,547,000, special financial assistance, £30,437,000, grants to universities, £1,029,000 and other grants, £637,000.

In addition to these, the States receive a number of other grants which are paid to trust funds. The main items in this class are the contribution to the sinking fund on States' debts (£5,386,000 in 1958-59) paid to the National Debt Sinking Fund, grants for Commonwealth Aid Roads (£36,199,000 in 1958-59) and grants for Universities (£5,890,000 in 1958-59) paid to State trust funds.

More detailed information concerning Commonwealth grants to the States is given on pages 835-40.

(vi) *Commonwealth National Welfare Fund Payments.* The States also receive payments from the Commonwealth in respect of Hospital and Pharmaceutical Benefits, Nutrition of Children and reimbursement of maintenance expenditure on Tuberculosis Sanatoria. These receipts are paid into Consolidated Revenue Funds or Trust Funds according to the varying accounting procedures in the States. In 1958-59, the total amount paid to State Consolidated Revenue Funds was £11,025,000 (1.7 per cent.). This amount was made up of Hospital Benefits, £3,896,000; Pharmaceutical Benefits, £1,103,000; Nutrition of Children, £1,192,000; and Tuberculosis—Reimbursement of maintenance expenditure, £4,834,000.

(vii) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. Interest, mainly from loans to local governing bodies, on public account balances, and for soldier land settlement amounted to £23,075,000 in 1958-59, while "Miscellaneous" revenue, which includes fines of the courts and fees for services, amounted to £46,991,000 in 1958-59.

II.—Expenditure.

1. *General.*—The principal heads of State expenditure from Consolidated Revenue Funds are:—

(a) Interest, exchange and debt redemption charges in connexion with public debt; (b) Working expenses of business undertakings; (c) Education; (d) Health and charitable expenditure; (e) Justice; (f) Police; (g) Penal establishments; and (h) All other expenditure, under which heading are included public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions and miscellaneous.

The working expenses of railways and tramways are the most important item of State Government expenditure. In 1958-59, the working expenses of the railways, tramways and omnibuses were 28.3 per cent. of the total expenditure from the State Consolidated Revenue Funds; next in importance were education, 18.0 per cent.; public debt charges, 16.2 per cent.; charitable, public health and hospitals, 14.2 per cent.; and law, order and public safety, 5.7 per cent respectively.

2. *Total Expenditure.*—The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1938-39 and 1954-55 to 1958-59 are shown in the following table.

STATE EXPENDITURE : CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL EXPENDITURE. (£'000.)							
1938-39 ..	53,558	27,773	19,316	12,701	11,170	3,641	128,159
1954-55 ..	197,586	115,453	73,602	50,918	46,554	14,707	498,820
1955-56 ..	211,232	126,398	77,392	56,782	51,443	17,712	540,959
1956-57 ..	223,700	137,565	85,142	61,610	56,243	19,615	583,875
1957-58 ..	231,464	145,549	89,470	66,742	58,177	20,798	612,200
1958-59 ..	239,727	153,796	100,198	69,057	61,753	22,745	647,276

PER HEAD OF POPULATION.

(£ s. d.)

1938-39 ..	19 11 7	14 16 8	19 3 3	21 6 10	23 18 5	15 6 5	18 10 8
1954-55 ..	57 2 3	46 8 0	55 10 8	63 1 2	71 14 9	46 19 9	55 3 4
1955-56 ..	59 18 8	49 5 7	57 4 4	68 0 11	76 17 10	55 9 10	58 7 10
1956-57 ..	62 6 11	52 2 1	61 13 6	71 10 6	82 3 4	60 2 10	61 11 9
1957-58 ..	63 5 5	53 15 3	63 15 2	75 6 7	83 5 8	62 5 0	63 3 11
1958-59 ..	64 6 10	55 8 2	70 5 3	76 0 7	86 14 0	66 12 11	65 9 0

(a) See § 1, para. 2, page 843.

3. Details of Expenditure.—(i) 1958-59. The following tables show the total expenditure and expenditure per head of population for each of the principal items:—

STATE EXPENDITURE: DETAILS, 1958-59.

Particulars.	N.S.W.(a)	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.(b)	Total.
TOTAL EXPENDITURE. (£'000.)							
Public Debt (interest, exchange, debt redemption, etc.) ..	30,760	26,216	14,208	16,026	10,913	6,928	105,051
Railways ..	66,146	35,908	36,354	13,924	15,925	..	168,257
Tramways and Omnibuses ..	13,480	..	..	..	1,221	..	14,701
Harbours and Rivers, etc. ..	1,995	464	..	1,332	563	..	4,354
Water Supply, Sewerage, Irrigation and Drainage ..	..	3,433	..	3,453	2,614	..	9,500
Other Business and Industrial Undertakings ..	..	862	94	246	1,392	1,383	3,977
Education ..	46,032	31,345	13,945	11,038	9,408	4,778	116,546
Health and Charitable ..	31,593	27,093	14,298	7,895	7,865	3,313	92,057
Justice ..	3,401	1,901	1,062	436	505	297	7,602
Police ..	8,712	6,742	3,918	1,851	1,794	871	23,888
Penal establishments ..	2,080	917	366	472	330	175	4,340
Public Safety ..	729	7	313	144	130	48	1,371
Adjustment of surplus of previous years(c) ..	..	..	5,212	49	1,342	- 14	6,589
All other expenditure ..	34,799	18,908	10,428	12,191	7,751	4,966	89,043
Total ..	239,727	153,796	100,198	69,057	61,753	22,745	647,276

(a) See § 1, para. 2, page 843. (b) Tasmanian transport services are under the separate control of the Transport Commission. (c) Balance of Special Grant, 1956-57. The Special Grant for 1958-59 taken into Tasmanian Consolidated Revenue Fund was £4,414,000 although the Commonwealth payment was £4,400,000. The difference was offset in the Tasmanian accounts against the adjusted surplus for 1956-57.

STATE EXPENDITURE: DETAILS, 1858-59—*continued*.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W Aust.	Tas.	Total.
PER HEAD OF POPULATION. (£ s. d.)							
Public Debt (interest, exchange, debt redemption, etc.)	8 5 1	9 8 11	9 19 3	17 12 11	15 6 5	20 6 0	10 12 5
Railways...	17 15 1	12 18 9	25 9 10	15 6 7	22 7 2	..	17 0 3
Tramways and Omnibuses ..	3 12 4	..	..	..	1 14 4	..	1 9 4
Harbours and Rivers, etc. ..	0 10 9	0 3 4	..	1 9 4	0 15 10	..	0 8 10
Water Supply, Sewerage, Irrigation and Drainage ..	..	1 4 9	..	3 16 0	3 13 5	..	0 19 3
Other Business and Industrial Undertakings ..	..	0 6 0	0 1 4	0 5 5	1 19 1	4 1 0	0 8 5
Education ..	12 7 1	11 5 10	9 15 7	12 3 1	13 4 2	14 0 0	11 15 8
Health and Charitable ..	8 9 7	9 15 3	10 0 6	8 13 10	11 0 10	9 14 2	9 6 2
Justice ..	0 18 3	0 13 9	0 14 11	0 9 7	0 14 2	0 17 5	0 15 5
Police ..	2 6 9	2 8 9	2 14 11	2 0 9	2 10 4	2 11 0	2 8 4
Penal establishments ..	0 11 2	0 6 7	0 5 2	0 10 5	0 9 3	0 10 3	0 8 9
Public safety ..	0 3 11	..	0 4 5	0 3 2	0 3 8	0 2 10	0 2 9
Adjustment of surplus of previous years ..	..	..	3 13 1	0 1 1	1 17 8	-0 0 10	0 13 4
All other expenditure	9 6 10	6 16 3	7 6 3	13 8 5	10 17 8	14 11 1	9 0 1
Total	64 6 10	55 8 2	70 5 3	76 0 7	86 14 0	66 12 11	65 9 0

(ii) 1938-39 and 1954-55 to 1958-59. Combined expenditure by the several States for these years on each of the principal items is shown in the following table.

STATE EXPENDITURE.

(£'000.)

Particulars.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Public Debt (interest, exchange, debt redemption, etc.)	40,158	70,394	79,540	86,693	97,123	105,051
Railways, Tramways and Omnibuses (working expenses) ..	38,138	173,915	185,236	191,921	185,083	182,958
Harbours and Rivers, etc. ..	680	4,444	4,421	4,359	4,537	4,354
Water Supply, Sewerage, Irrigation and Drainage ..	1,076	7,051	7,650	8,393	9,498	9,500
Other Business and Industrial Undertakings ..	1,035	3,554	3,494	4,150	4,701	3,977
Education ..	12,639	76,249	87,110	95,687	104,702	116,546
Health and Charitable ..	15,307	67,338	70,888	78,633	84,449	92,057
Justice ..	1,323	5,349	6,031	6,599	7,099	7,602
Police ..	3,733	16,679	18,788	20,721	22,276	23,888
Penal Establishments ..	646	2,928	3,207	3,779	4,084	4,340
Public Safety ..	297	852	930	1,694	1,118	1,371
Reduction of previous deficits or adjustment of surpluses ..	..	-250	-159	-19	348	6,589
All other expenditure ..	13,127	70,317	73,823	81,265	87,182	89,043
Total ..	128,159	498,820	540,959	583,875	612,200	647,276

III.—Surplus Revenue.

The following table shows for each of the years 1938–39 and 1954–55 to 1958–59 the total amount and amount per head of population of the surplus or deficit of each State:—

STATE SURPLUS REVENUE.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL AMOUNT. (£'000.)							
1938–39 ..	–2,459	– 787	14	– 397	– 221	– 26	– 3,876
1954–55 ..	–2,148	1,336	218	– 2,234	– 484	–212	– 3,524
1955–56 ..	–6,833	–3,246	–1,723	–1,430	–1,831	115	–14,948
1956–57 ..	129	–4,311	16	– 49	–1,912	–814	– 6,941
1957–58 ..	46	–3,213	–1,515	– 400	–1,123	–812	– 7,017
1958–59 ..	42	–2,548	–1,191	–1,027	–1,685	–908	– 7,317

PER HEAD OF POPULATION.

(£ s. d.)

1938–39 ..	–0 18 0	–0 8 5	0 0 3	–0 13 4	–0 9 5	–0 2 3	–0 11 3
1954–55 ..	–0 12 5	0 10 9	0 3 4	–2 15 4	–0 14 11	–0 13 6	–0 7 10
1955–56 ..	–1 18 9	–1 5 3	–1 5 6	–1 14 3	–2 14 9	0 7 2	–1 12 4
1956–57 ..	0 0 9	–1 12 7	0 0 3	–0 1 2	–2 15 11	–2 9 11	–0 14 8
1957–58 ..	0 0 3	–1 3 8	–1 1 7	–0 9 0	–1 12 2	–2 8 7	–0 14 5
1958–59 ..	0 0 2	–0 18 5	–0 16 8	–1 2 7	–2 7 4	–2 13 3	–0 14 9

(a) See § 1, para. 2, page 843.

NOTE.—Minus sign (–) indicates deficit.

§ 3. State Trust Funds.

In addition to the moneys received as revenue and paid to the credit of the Consolidated Revenue Funds, considerable sums are held in trust for various purposes by the State Governments. The balances of trust funds held at 30th June for each of the years 1939 and 1955 to 1959 were as follows:—

STATE TRUST FUND BALANCES.

(£'000.)

At 30th June—	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Total.
1939	15,684	8,189	3,062	1,448	3,744	530	32,657
1955	39,335	30,649	50,549	4,127	11,686	739	137,085
1956	40,442	29,850	47,165	4,517	13,535	838	136,347
1957	45,392	32,138	48,034	4,718	14,537	1,151	145,970
1958	51,776	34,415	53,921	5,650	14,565	1,560	161,887
1959	55,093	38,635	53,828	5,057	16,569	2,148	171,330

(a) Special Deposits Account and Special Accounts.

§ 4. State Loan Funds.

1. **General.**—As far back as 1842, revenue collections were supplemented by borrowed moneys, the earliest loan being raised by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem, or approximately from 4½ per cent. to 8 per cent. per annum. State public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and operation of the railway systems. Loan moneys have also been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for defence or war purposes, as the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to "gross" loan expenditure are shown below. The gross expenditure represents the amounts disbursed during each year. Details of "net" loan expenditure, i.e., gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds may be found in *Finance, Part I, Public and Private Finance*, Bulletin No. 50, 1958–59. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. **Gross Loan Expenditure.**—(i) 1958–59. Particulars of gross loan expenditure on works, services, etc., are shown in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1958–59.
(£'000.)

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<i>Public Works and Services—</i>							
Railways	11,442	7,432	5,415	1,800	3,251	435	29,775
Tramways and Omnibuses	1,344	..	..	..	452	132	1,928
Roads	181	116	624	..	..	..	..
Bridges	..	1,266	..	..	..	..	..
Harbours and Rivers	3,508	295	59	1,296	992	798	7,887
Lights and Lighthouses	..	..	..	..	..	..	..
Water Supply	..	7,903	625	6,177	3,154	121	25,357
Sewerage	4,781	482	..	1,721	393	..	..
Electricity Supply	10,447	3,500	..	2,250	1,100	6,534	23,831
Gas Supply	..	110	..	..	..	..	110
Public Buildings	18,530	16,772	5,964	6,737	3,750	3,419	55,172
Loans and Grants to Local Bodies	236	369	7,724	..	205	20	8,554
Housing(b)	70	518	1,750	3,953	1,354	182	7,827
Other Public Works, etc.	91	360	..	176	824	527	1,978
<i>Primary Production—</i>							
Soldier Settlement	2,299	3,646	310	2	..	67	6,324
Land for Settlement	..	..	123	116	..	1	240
Advances to Settlers	..	113	..	523	..	206	842
Water Conservation	..	..	2,475	182	335	..	10,105
Irrigation and Drainage	6,170	..	..	602	341	..	..
Vermín-proof Fencing	..	(c)	10	(d)	..	..	10
Agriculture	200	..	..	..	225	..	425
Agricultural Bank	..	..	820	..	561	..	1,381
Forestry	156	637	1,708	826	100	352	3,779
Mines and Mineral Resources	185	75	54	293	510	..	1,117
Other	412	134	..	48	19	..	613
<i>Other Purposes</i>	..	(e)	693	560	123	65	1,559
Total Public Works, Services, etc.	60,052	44,421	26,531	27,262	17,689	12,859	188,814
Per Head of Population..	£16 2 4	£16 0 1	£18 12 1	£30 0 4	£24 16 9	£37 13 7	£19 1 10

(a) Expenditure from Loan Funds and on account of Loans; includes expenditure from Loan Funds, from Treasurer's Advance Account and from State Loans Repayment Fund. (b) Excludes expenditure from Commonwealth Loans under Commonwealth-State Housing Agreement. (c) Transferred to Barrier Fences Trust Fund. (d) Included with Advances to Settlers. (e) Includes Rural Finance Corporation, for advances to rural industries, £550,000.

(ii) 1938–39 and 1954–55 to 1958–59. Particulars of gross loan expenditure on works, etc., for these years are shown in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
GROSS LOAN EXPENDITURE. (£'000.)							
1938–39 ..	8,789	3,218	3,393	2,529	1,783	1,687	21,399
1954–55 ..	53,336	40,952	20,498	26,897	16,433	17,211	175,327
1955–56 ..	55,369	39,131	21,655	29,019	14,983	17,354	177,511
1956–57 ..	54,296	40,950	22,976	26,385	17,936	11,233	173,776
1957–58 ..	57,597	41,338	23,190	24,772	15,914	10,882	173,693
1958–59 ..	60,052	44,421	26,531	27,262	17,689	12,859	188,814

PER HEAD OF POPULATION.
(£ s. d.)

1938–39 ..	3 4 3	1 14 5	3 7 4	4 5 0	3 16 4	7 2 0	3 1 11
1954–55 ..	15 8 4	16 9 2	15 9 4	33 6 2	25 6 6	54 19 10	19 7 9
1955–56 ..	15 14 2	15 5 2	16 0 2	34 15 6	22 7 11	54 7 4	19 3 2
1956–57 ..	15 2 8	15 10 3	16 12 10	30 12 8	26 4 1	34 8 10	18 6 7
1957–58 ..	15 14 11	15 5 5	16 10 6	27 19 2	22 15 7	32 11 5	17 18 7
1958–59 ..	16 2 4	16 0 1	18 12 1	30 0 4	24 16 9	37 13 7	19 1 10

(a) See footnote (a) to previous table.

The above tables do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. Summaries of the gross and net expenditure and repayments in respect of all loans purpose for the years 1956–57 to 1958–59 are shown in the next paragraph.

3. **Total Loan Expenditure.**—The following table shows particulars, in summary form, of the total loan expenditure in each State during each of the years, 1956–57 to 1958–59.

STATE LOAN EXPENDITURE: SUMMARY.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1956–57.							
<i>Works and Services—</i>							
Gross Expenditure ..	54,296	40,950	22,976	26,385	17,936	11,233	173,776
Net Expenditure ..	48,975	38,449	20,114	23,953	16,278	10,535	158,304
Repayments ..	5,321	2,501	2,862	2,432	1,658	698	15,472
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	2,671	4,747	— 1	1,062	2,072	539	11,090
Net Expenditure ..	2,671	4,747	79	1,031	2,049	484	11,061
Repayments ..	..	..	—80	31	(b) 23	55	29
Total Loan Expenditure—							
Gross ..	56,967	45,697	22,975	27,447	20,008	11,772	184,866
Net ..	51,646	43,196	20,193	24,984	18,327	11,019	169,365
Repayments ..	5,321	2,501	2,782	2,463	1,681	753	15,501

For footnotes see next page.

STATE LOAN EXPENDITURE: SUMMARY—*continued*.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1957-58.							
<i>Works and Services—</i>							
Gross Expenditure ..	57,597	41,338	23,190	24,772	15,914	10,882	173,693
Net Expenditure ..	52,610	38,421	20,022	21,752	14,136	10,044	156,985
Repayments ..	4,987	2,917	3,168	3,020	1,778	838	16,708
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	—986	3,965	..	57	1,364	813	5,213
Net Expenditure ..	—986	3,965	—590	..	1,308	789	4,486
Repayments ..	..	..	590	57	(b) 56	24	727
Total Loan Expenditure—							
Gross ..	56,611	45,303	23,190	24,829	17,278	11,695	178,906
Net ..	51,624	42,386	19,432	21,752	15,444	10,833	161,471
Repayments ..	4,987	2,917	3,758	3,077	1,834	862	17,435
1958-59.							
<i>Works and Services—</i>							
Gross Expenditure ..	60,052	44,421	26,531	27,262	17,689	12,859	188,814
Net Expenditure ..	54,496	41,491	21,025	24,159	16,171	11,673	169,015
Repayments ..	5,556	2,930	5,506	3,103	1,518	1,186	19,799
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	—1,691	3,000	..	705	—22	946	2,938
Net Expenditure ..	—1,691	3,000	400	628	—111	883	3,109
Repayments ..	..	..	—400	77	(b) 89	63	—171
Total Loan Expenditure—							
Gross ..	58,361	47,421	26,531	27,967	17,667	13,805	191,752
Net ..	52,805	44,491	21,425	24,787	16,060	12,556	172,124
Repayments ..	5,556	2,930	5,106	3,180	1,607	1,249	19,628

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits.

(b) From Consolidated Revenue Fund.

NOTE.—Minus sign (—) indicates excess of repayments to loan fund.

Information relating to the State Public Debt is given in division D. Commonwealth and State Public Debt (pp. 859-67).

C. COMMONWEALTH AND STATE FINANCE.

1. **Revenue and Expenditure.**—(i) *Consolidated Revenue Funds.* The following tables show the aggregate revenue and expenditure of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1938-39 and 1954-55 to 1958-59. In these tables, the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are :—payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of tax reimbursements, interest under the Financial Agreement, special grants, special financial assistance, coal strike emergency grants, price control reimbursements, grants to universities, cattle tick control, tuberculosis capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made and the adjusted figures are therefore still slightly overstated.

COMMONWEALTH AND STATES : REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.			Expenditure.		
	Commonwealth.	States.	Total.	Commonwealth.	States.	Total.
	£'000.	£'000.	£m.	£'000.	£'000.	£m.
1939.. ..	95,065	124,283	209.6	95,065	128,159	213.5
1955.. ..	1,067,441	495,296	1,378.2	1,067,441	498,820	1,381.7
1956.. ..	1,138,358	526,011	1,466.1	1,138,358	540,959	1,481.0
1957.. ..	1,311,835	576,934	1,672.4	1,311,835	583,875	1,679.4
1958.. ..	1,323,771	605,183	1,690.7	1,323,771	612,200	1,697.7
1959.. ..	1,296,050	639,959	1,682.9	1,296,050	647,276	1,690.3

(ii) *Loan Expenditure.* The aggregate gross loan expenditures of the Commonwealth and States on works and services for the years 1938–39 and 1954–55 to 1958–59 are shown in the following table:—

COMMONWEALTH AND STATE GROSS LOAN EXPENDITURE: WORKS AND SERVICES.(a)
(£'000.)

Gross Loan Expenditure.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Commonwealth(b)	3,913	33,189	44,003	44,068	45,174	86,121
State	21,399	175,327	177,511	173,776	173,693	188,814
Total	25,312	208,516	221,514	217,844	218,867	274,935

(a) Excludes expenditure on loan flotations, funding deficits, etc. (b) Includes expenditure on Defence, War (1939–45) and Repatriation Services. Excludes payments to the National Debt Sinking Fund from proceeds of the loan from the International Bank for Reconstruction and Development, payments to the Swiss Loan Trust account from proceeds of the Swiss Loan, and payments to the Canadian Loan Trust account from proceeds of the Canadian Loan (see pp. 88£1–72).

2. *Taxation.*—The following table shows the combined Commonwealth and State taxation, and the amount per head of population, for the years 1938–39 and 1954–55 to 1958–59. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds have been included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS.(a)

Particulars.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
NET COLLECTIONS. (£'000.)						
Customs and Excise Duties ..	47,632	244,403	255,772	286,037	303,051	307,925
Sales Tax	9,308	100,446	110,001	125,752	137,777	143,617
Land Tax	2,897	5,011	5,969	11,827	15,407	15,424
Pay-roll Tax		41,455	45,543	48,675	48,552	49,619
Income Taxes	41,679	532,968	574,062	620,321	650,452	608,675
Probate and Succession Duties	6,916	31,216	33,508	37,089	39,477	40,486
Stamp Duties, n.e.i. ..	3,466	16,027	18,181	21,336	24,527	28,317
Motor Taxes	6,961	27,783	28,919	33,539	37,520	41,905
Liquor Taxes	1,045	5,563	6,617	7,220	8,095	8,483
Racing	1,251	6,992	7,430	7,495	7,870	7,540
Entertainments Tax ..	633	1,339	1,445	1,838	1,982	1,846
Licences, n.e.i., and other Taxes	2,841	13,891	14,334	12,142	14,877	17,291
Commonwealth	74,122	937,608	1,003,780	1,098,736	1,161,533	1,133,298
States	50,507	89,486	98,001	114,535	128,054	137,830
Total	124,629	1,027,094	1,101,781	1,213,271	1,289,587	1,271,128

PER HEAD OF POPULATION.
(£ s. d.)

	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Customs and Excise Duties ..	6 17 5	26 17 9	27 9 1	30 0 0	31 2 1	30 18 9
Sales Tax	1 6 10	11 1 0	11 16 2	13 3 9	14 2 8	14 8 7
Land Tax	0 8 4	0 11 0	0 12 10	1 4 10	1 11 7	1 11 0
Pay-roll Tax		4 11 2	4 17 9	5 2 1	4 19 8	4 19 9
Income Taxes	6 0 3	58 12 7	61 12 6	65 1 2	66 14 10	61 3 1
Probate and Succession Duties	0 19 11	3 8 8	3 11 11	3 17 9	4 1 0	4 1 4
Stamp Duties, n.e.i. ..	0 10 0	1 15 3	1 19 0	2 4 9	2 10 4	2 16 11
Motor Taxes	1 0 1	3 1 2	3 2 1	3 10 4	3 17 0	4 4 2
Liquor Taxes	0 3 0	0 12 3	0 14 2	0 15 2	0 16 7	0 17 0
Racing	0 3 8	0 15 5	0 15 11	0 15 9	0 16 2	0 15 2
Entertainments Tax ..	0 1 10	0 3 0	0 3 1	0 3 10	0 4 1	0 3 9
Licences, n.e.i., and other Taxes	0 8 1	1 10 7	1 11 0	1 5 6	1 10 6	1 14 10
Commonwealth	10 13 9	103 2 11	107 15 0	115 4 8	119 3 8	113 17 5
States	7 8 2	9 17 11	10 11 7	12 1 8	13 4 4	13 18 9
Total	17 19 5	112 19 10	118 5 6	127 4 11	132 6 6	127 14 4

(a) For separate details of Commonwealth and State taxation collections, see pages 815 and 845.

D. COMMONWEALTH AND STATE PUBLIC DEBT.

§ 1. General.

Under the Financial Agreement between the Commonwealth and the States in 1927, the Commonwealth and State public debts were amalgamated and the Commonwealth Government accepted responsibility for the State public debts. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf and the debt is redeemed from the National Debt Sinking Fund to which both the Commonwealth and the States make contributions. Under the agreement, the Commonwealth arranges for all borrowings on behalf of the Commonwealth and the States, and Commonwealth securities are issued for all money borrowed.

In the statistical tables relating to public debt, the units of currency for debt outstanding and interest payable, except in § 3, para. 5, are:—Debt in Australia—£ Australian; Debt in London—£ Sterling; Debt in New York—£ (converted from dollars at the rate of \$4.8665 to £1); Debt in Canada—£ (converted from dollars at the rate of \$4.8665 to £1); Debt in Switzerland—£ (converted from Swiss francs at the rate of 1,000 Swiss francs = £A.102 1s. 10d.).

The totals shown represent the total “face” or “book” value of the debt without adjustment on account of the difference in currency mentioned above.

In § 3, para. 5 only, details of the debt for the Commonwealth and each State are given in Australian currency.

§ 2. The Financial Agreement between the Commonwealth and the States.

1. *General.*—Full details of the Financial Agreement between the Commonwealth and the States are given in earlier issues of the Official Year Book (*see* No. 37, pp. 685–690). In this issue, a summary of the main provisions only is given.

2. *Australian Loan Council.*—The Australian Loan Council was set up to co-ordinate the public borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth, or another Minister nominated by him in writing, as Chairman, and the State Premiers, or Ministers nominated by them in writing. Each year the Loan Council examines the loan programmes of the Commonwealth and the States and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

3. *Loan Raisings for the Commonwealth and States.*—Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the public debts of the Commonwealth and of the States.

If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bond-holders in respect of the money so borrowed and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may—

- (i) borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice;
- (ii) borrow from the public by means of counter sales of securities; and
- (iii) use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

4. *Taking over of State Public Debts.*—The Commonwealth took over on 1st July, 1929—

- (a) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (b) all other debts of each State existing on 1st July, 1929, for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State,

and in respect of these debts assumed, as between the Commonwealth and the States, the liabilities of the States to bond holders.

5. **Transferred Properties.**—In relation to State properties transferred to the Commonwealth under Section 85 of the Constitution, the States as from 1st July, 1929, were discharged from any liability in respect of principal, interest or debt redemption on so much of the debts bearing interest at 5 per cent. per annum, taken over by the Commonwealth as amounted to the agreed value of these properties, namely £10,924,323.

6. **Payment of Interest.**—For a period of 58 years from 1st July, 1927, the Commonwealth agreed to contribute the sum of £7,584,912 each year towards the interest payable on the State debts. The balance of the interest payable on the State debts is paid to the Commonwealth by the States.

7. **Sinking Fund.**—(i) *State Public Debt existing at 30th June, 1927.* A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes annually from revenue 2s. 6d. per £100 on the net public debts of the States existing at 30th June, 1927, and each State contributes annually 5s. per £100 on the net public debt of such State at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years from 1st July, 1927, and those of New South Wales for a similar period from 1st July, 1928.

(ii) *New Borrowings.* On new borrowings after 1st July, 1927, (except those for redemptions or conversions, or funding a State deficit) a sinking fund at the rate of 10s. per £100 per annum was established and the State and the Commonwealth contribute from revenue equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927–28 until 1st July, 1928.)

(iii) *Loans raised to meet a Revenue Deficit.* In respect of any loan (except any of the loans referred to in para. (iv) below) raised by a State after 30th June, 1927, to meet a revenue deficit accruing after that date, no sinking fund contribution is made by the Commonwealth, but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of 4½ per cent. per annum compound interest.

(iv) *Loans raised to meet Revenue Deficits between 30th June, 1927, and 1st July, 1935.* Special contributions are payable in respect of loans raised by a State or by the Commonwealth on behalf of a State, on the security of Commonwealth Treasury Bills, to meet a revenue deficit which accrued after 30th June, 1927, and before 1st July, 1935. Details of these contributions are given in Official Year Book No. 37, pages 688 and 689.

(v) *National Debt Commission.* The sinking funds established are controlled by the National Debt Commission, which may arrange with any State to act as its agent in connexion with payments due to bond holders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature held by a State on 30th June, 1929 precluded such transfer, all such funds were transferred to the National Debt Commission.

(vi) *Operation of Sinking Fund.* Sinking fund contributions made in respect of the debts of a State, and funds of that State transferred to the National Debt Commission, are not accumulated but must be applied, whenever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of 4½ per cent. on the face value of the cancelled security for the balance of the period during which the original contribution is payable in respect of that debt.

(vii) *Oversea Debt.* Sinking fund contributions in respect of oversea debt shall be calculated at the mint par of exchange prevailing on 1st July, 1927.

8. **Borrowing by Semi-Governmental Authorities.**—It was realized from the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of the borrowing of large amounts by semi-governmental authorities. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the Government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

§ 3. Commonwealth and State Public Debt Outstanding.

1. Public Debt, Annual Interest Payable and Average Rate of Interest at 30th June, 1959.—In the following table, details are given of the Commonwealth and State Public Debt, annual interest payable and average rate of interest at 30th June, 1959.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1959.

Particulars.	Maturing in—					Total.
	Australia.	London.	New York.	Canada.	Switzer-land.	
DEBT.						
	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)	£'000.(a)
Commonwealth Debt—						
War (1914-18) Debt(b)—						
Stock and Bonds	89,724	7,534	..	..	..	97,258
Other Debt(c)	75	..	..	..	..	75
Total War (1914-18)						
Debt	89,799	7,534	..	..	..	97,333
War (1939-45) Debt—						
Stock and Bonds	638,675	5,655	..	..	..	644,330
Treasury Bills, Internal ..	258,790	..	..	..	..	258,790
Treasury Bills, Public ..	133,690	..	..	..	..	133,690
Other Debt(d)	12,442	..	..	..	..	12,442
Total War (1939-45)						
Debt	1,043,597	5,655	..	..	..	1,049,252
Works and Other Purposes—						
Stock and Bonds	314,837	50,851	10,360	2,842	12,251	391,141
Treasury Bills, Internal ..	10,810	..	..	..	..	10,810
Treasury Bills, Public ..	37,310	..	..	..	..	37,310
International Bank Dollar						
Loans .. ..	..	..	58,632	..	..	58,632
Serial Notes .. ..	..	..	4,802	..	..	4,802
Total Works and						
Other Purposes ..	362,957	50,851	73,794	2,842	12,251	502,695
Total Commonwealth						
Debt	1,496,353	64,040	73,794	2,842	12,251	1,649,280
State Debt—						
Stock and Bonds	2,059,675	263,625	30,003	..	..	2,353,303
Debentures	34,077	..	..	..	..	34,077
Balance of Debt of States						
taken over by Common-						
wealth and still represented						
by State Securities ..	..	4,241	..	..	..	4,241
Total State Debt ..	2,093,752	267,866	30,003	..	..	2,391,621
Grand Total Com-						
monwealth and						
State Debt ..	3,590,105	331,906	103,797	2,842	12,251	4,040,901

(a) See § 1, p. 857. (b) Excludes War (1914–18) Debt due to United Kingdom Government (£79,724,000). Repayment of this debt and interest thereon (£3,919,774) was suspended in 1931. (c) War and Peace Savings Certificates and Stamps and War Gratuity Bonds. (d) Advance Loan Subscriptions, National Savings Bonds, War Savings and Savings Certificates, War Savings and National Savings Stamps.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1959—*continued.*

Particulars.	Maturing in—					Total.
	Australia.	London.	New York.	Canada.	Switzerland.	

DEBT PER HEAD OF POPULATION.

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth Debt—</i>						
War (1914–18) Debt(b) ..	8 18 6	0 15 0	..	..	..	9 13 6
War (1939–45) Debt ..	103 14 6	0 11 3	..	..	..	104 5 9
Works and Other Purposes ..	36 1 6	5 1 1	7 6 8	0 5 8	1 4 4	49 19 3
<i>Total Commonwealth Debt ..</i>	<i>148 14 6</i>	<i>6 7 4</i>	<i>7 6 8</i>	<i>0 5 8</i>	<i>1 4 4</i>	<i>163 18 6</i>
<i>Total State Debt ..</i>	<i>209 9 11</i>	<i>26 16 1</i>	<i>3 0 0</i>	<i>..</i>	<i>..</i>	<i>239 6 0</i>
<i>Grand Total Commonwealth and State Debt ..</i>	<i>356 16 6</i>	<i>32 19 9</i>	<i>10 6 4</i>	<i>0 5 8</i>	<i>1 4 4</i>	<i>401 12 7</i>

ANNUAL INTEREST PAYABLE.

	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)	£'000.(a)
<i>Commonwealth Debt—</i>						
War (1914–18) Debt(b) ..	3,329	227	..	..	..	3,556
War (1939–45) Debt ..	28,560	226	..	..	..	28,786
Works and Other Purposes ..	13,811	1,874	3,321	114	475	19,595
<i>Total Commonwealth Debt ..</i>	<i>45,700</i>	<i>2,327</i>	<i>3,321</i>	<i>114</i>	<i>475</i>	<i>51,937</i>
<i>Total State Debt ..</i>	<i>84,746</i>	<i>9,859</i>	<i>1,259</i>	<i>..</i>	<i>..</i>	<i>95,864</i>
<i>Grand Total Commonwealth and State Debt ..</i>	<i>130,446</i>	<i>12,186</i>	<i>4,580</i>	<i>114</i>	<i>475</i>	<i>147,801</i>

ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION.

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth Debt—</i>						
War (1914–18) Debt(b) ..	0 6 8	0 0 5	..	..	..	0 7 1
War (1939–45) Debt ..	2 16 9	0 0 5	..	..	..	2 17 2
Works and Other Purposes ..	1 7 5	0 3 9	0 6 7	0 0 3	0 0 11	1 18 11
<i>Total Commonwealth Debt ..</i>	<i>4 10 10</i>	<i>0 4 7</i>	<i>0 6 7</i>	<i>0 0 3</i>	<i>0 0 11</i>	<i>5 3 2</i>
<i>Total State Debt ..</i>	<i>8 9 7</i>	<i>0 19 9</i>	<i>0 2 6</i>	<i>..</i>	<i>..</i>	<i>9 11 10</i>
<i>Grand Total Commonwealth and State Debt ..</i>	<i>12 19 4</i>	<i>1 4 3</i>	<i>0 9 1</i>	<i>0 0 3</i>	<i>0 0 11</i>	<i>14 13 10</i>

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth Debt—</i>						
War (1914–18) Debt(b) ..	3 14 2	3 0 5	..	..	..	3 13 1
War (1939–45) Debt ..	2 14 10	4 0 0	..	..	..	2 14 11
Works and Other Purposes ..	3 16 3	3 13 8	4 10 0	4 0 0	3 17 6	3 18 1
<i>Total Commonwealth Debt ..</i>	<i>3 1 2</i>	<i>3 12 8</i>	<i>4 10 0</i>	<i>4 0 0</i>	<i>3 17 6</i>	<i>3 3 1</i>
<i>Total State Debt ..</i>	<i>4 0 11</i>	<i>3 13 7</i>	<i>4 3 11</i>	<i>..</i>	<i>..</i>	<i>4 0 2</i>
<i>Grand Total Commonwealth and State Debt ..</i>	<i>3 12 9</i>	<i>3 13 5</i>	<i>4 8 3</i>	<i>4 0 0</i>	<i>3 17 6</i>	<i>3 13 2</i>

(a) See § 1, p. 857. (b) Excludes War (1914–18) Debt due to United Kingdom Government (£79,724,000). Repayment of this debt and interest thereon (£3,919,774) was suspended in 1931.

2. **Public Debt and Annual Interest Payable, 1939 and 1955 to 1959.**—In the following table, details are given of the Public Debt and annual interest payable, including the average rate of interest, at 30th June, 1939 and 1955 to 1959. A dissection of debt for these years into debt payable in Australia, London, New York, Canada and Switzerland may be found in the annual bulletin *Finance, Part I, Public and Private Finance*.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE.

Particulars.	1939.	1955.	1956.	1957.	1958.	1959.
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DEBT.
(£'000.) (a)

<i>Commonwealth Debt—</i>						
War (1914–18) Debt ..	186,214	134,079	129,880	120,140	104,674	97,333
War (1939–45) Debt ..	..	1,444,832	1,405,072	1,339,818	1,196,213	1,049,252
Works and Other Purposes ..	131,313	344,806	391,615	425,473	433,989	502,695
<i>Total Commonwealth Debt</i>	<i>317,527</i>	<i>1,923,717</i>	<i>1,926,567</i>	<i>1,885,431</i>	<i>1,734,876</i>	<i>1,649,280</i>
<i>State Debt</i>	<i>897,772</i>	<i>1,825,727</i>	<i>1,962,027</i>	<i>2,106,477</i>	<i>2,247,932</i>	<i>2,391,621</i>
Grand Total Commonwealth and State Debt	1,215,299	3,749,444	3,888,594	3,991,908	3,982,808	4,040,901

ANNUAL INTEREST PAYABLE.
(£'000.) (a)

<i>Commonwealth Debt—</i>						
War (1914–18) Debt ..	7,376	4,501	4,408	4,158	3,792	3,556
War (1939–45) Debt ..	..	38,580	37,731	36,132	31,529	28,786
Works and Other Purposes ..	5,150	12,488	14,489	16,598	17,674	19,595
<i>Total Commonwealth Debt</i>	<i>12,526</i>	<i>55,569</i>	<i>56,628</i>	<i>56,888</i>	<i>52,995</i>	<i>51,937</i>
<i>State Debt</i>	<i>33,644</i>	<i>64,046</i>	<i>70,610</i>	<i>79,739</i>	<i>88,074</i>	<i>95,864</i>
Grand Total Commonwealth and State Debt	46,170	119,615	127,238	136,627	141,069	147,801

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).
(£ s. d.) (a)

<i>Commonwealth Debt—</i>						
War (1914–18) Debt ..	3 19 3	3 7 5	3 8 0	3 9 3	3 12 6	3 13 1
War (1939–45) Debt ..	..	2 13 5	2 13 9	2 14 0	2 12 9	2 14 11
Works and Other Purposes ..	3 18 5	3 12 6	3 14 0	3 18 0	4 1 7	3 18 1
<i>Total Commonwealth Debt</i>	<i>3 18 11</i>	<i>2 17 10</i>	<i>2 18 10</i>	<i>3 0 4</i>	<i>3 1 2</i>	<i>3 3 1</i>
<i>State Debt</i>	<i>3 14 11</i>	<i>3 10 2</i>	<i>3 12 0</i>	<i>3 15 9</i>	<i>3 18 4</i>	<i>4 0 2</i>
Grand Total Commonwealth and State Debt	3 16 0	3 3 10	3 5 5	3 8 6	3 10 10	3 13 2

(a) See § 1, p. 857.

3. **State Public Debt and Annual Interest Payable at 30th June, 1959.**—In paragraphs 1 and 2, totals only of the States' Public Debt are given. In the following tables, the total debt of each State and the amounts outstanding per head of population at 30th June, 1959, the annual interest payable and the average rate of interest payable are shown according to the place of flotation.

STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1959.

State.	Maturing in Australia.	Maturing Overseas.			Grand Total.
		London.	New York.	Total Overseas.	

DEBT.

	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)
New South Wales	707,504	111,653	13,210	124,863	832,367
Victoria	508,187	41,252	5,573	46,825	555,012
Queensland	253,659	44,618	5,193	49,811	303,470
South Australia	279,327	32,346	3,155	35,501	314,828
Western Australia	199,575	30,631	1,913	32,544	232,119
Tasmania	145,500	7,366	959	8,325	153,825
Total	2,093,752	267,866	30,003	297,869	2,391,621

DEBT PER HEAD OF POPULATION.

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
New South Wales	188 6 11	29 14 6	3 10 4	33 4 10	221 11 9
Victoria	180 11 2	14 13 2	1 19 7	16 12 9	197 3 11
Queensland	176 0 7	30 19 3	3 12 1	34 11 4	210 11 11
South Australia	303 6 10	35 2 7	3 8 6	38 11 1	341 17 11
Western Australia	277 10 3	42 11 10	2 13 2	45 5 0	322 15 3
Tasmania	425 1 0	21 10 4	2 16 0	24 6 4	449 7 4
Total	209 9 11	26 16 1	3 0 0	29 16 1	239 6 0

ANNUAL INTEREST PAYABLE.

	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)
New South Wales	28,475	4,274	537	4,811	33,286
Victoria	20,938	1,690	244	1,934	22,872
Queensland	9,949	1,584	208	1,792	11,741
South Australia	11,443	1,078	140	1,218	12,661
Western Australia	7,984	965	85	1,050	9,034
Tasmania	5,957	268	45	313	6,270
Total	84,746	9,859	1,259	11,118	95,864

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
New South Wales	4 0 6	3 16 7	4 1 4	3 17 1	4 0 0
Victoria	4 2 5	4 1 11	4 7 4	4 2 7	4 2 5
Queensland	3 18 5	3 11 0	4 0 2	3 11 11	3 17 5
South Australia	4 1 11	3 6 8	4 8 9	3 8 8	4 0 5
Western Australia	4 0 0	3 3 0	4 8 6	3 4 6	3 17 10
Tasmania	4 1 11	3 12 8	4 14 2	3 15 2	4 1 6
Total	4 0 11	3 13 7	4 3 11	3 14 8	4 0 2

(a) See § 1, p. 857.

4. State Public Debt, 1939 and 1955 to 1959.—In the following table, the debt of each State and the amounts outstanding per head of population at 30th June, 1939 and 1955 to 1959 are shown.

STATE PUBLIC DEBT.

30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
DEBT. (£'000.) (a)							
1939	359,844	179,698	127,503	108,887	95,473	26,367	897,772
1955	655,599	411,199	236,474	234,769	177,881	109,805	1,825,727
1956	698,136	445,713	252,799	254,423	188,733	122,223	1,962,027
1957	742,696	481,819	269,320	274,913	205,145	132,584	2,106,477
1958	787,462	518,213	285,947	294,821	218,428	143,061	2,247,932
1959	832,367	555,012	303,470	314,828	232,119	153,825	2,391,621

DEBT PER HEAD OF POPULATION.

(£ s. d.) (a)							
1939	130 18 7	95 13 3	125 4 11	182 10 6	203 2 4	111 1 2	129 3 11
1955	187 16 8	162 19 7	175 17 5	286 9 3	270 2 3	358 18 10	199 10 4
1956	196 9 4	171 1 11	184 8 8	299 16 10	278 12 4	382 7 5	209 5 10
1957	205 0 0	180 4 5	192 16 5	314 17 3	296 10 1	404 7 0	219 14 11
1958	213 9 0	189 0 8	201 14 10	328 15 4	309 14 4	426 10 4	229 14 6
1959	221 11 9	197 3 11	210 11 11	341 17 11	322 15 3	449 7 4	239 6 0

(a) See § 1, p. 857.

In some States, certain public utilities such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which, in addition to receiving advances from the central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the central Government. Comparison of the debts of the States is therefore difficult, but on page 867 figures showing the aggregate debts of the States, including these local and semi-governmental authorities, are shown for the years 1938–39 and 1953–54 to 1957–58.

5. Public Debt and Interest Payable in Australian Currency.—In the foregoing tables relating to Commonwealth and State public debt, the debt outstanding in London is expressed in sterling, debt outstanding in New York and Canada is expressed in pounds converted from dollars at the rate of \$4.8665 to £1 and debt outstanding in Switzerland is expressed in pounds converted from Swiss francs at the rate of 1,000 Swiss francs = £A.102 1s. 10d. This method of showing the debt does not indicate the amount that the Australian Government would have to find to repay the debt at current rates of exchange. In the following tables, the public debt and the interest payable are shown in terms of Australian currency throughout. Debt in London, New York, Canada and Switzerland has been converted to Australian currency at the selling rate of exchange on 30th June, 1959.

COMMONWEALTH AND STATE PUBLIC DEBT AND INTEREST PAYABLE
AT 30th JUNE, 1959 : AUSTRALIAN CURRENCY.
(£A.'000.)

Particulars.	Maturing in—					Total.
	Australia.	London. (a)	New York. (b)	Canada. (c)	Switzer- land. (d)	
DEBT.						
<i>Commonwealth Debt—</i>						
War (1914-18) Debt ..	89,799	9,455	..	..	..	99,254
War (1939-45) Debt ..	1,043,597	7,097	..	..	..	1,050,694
Works and Other Purposes ..	362,957	63,818	160,378	6,474	12,468	606,095
<i>Total Commonwealth Debt</i>	<i>1,496,353</i>	<i>80,370</i>	<i>160,378</i>	<i>6,474</i>	<i>12,468</i>	<i>1,756,043</i>
<i>State Debt—</i>						
New South Wales ..	707,504	140,124	28,710	..	..	876,338
Victoria	508,187	51,772	12,112	..	..	572,071
Queensland	253,659	55,996	11,286	..	..	320,941
South Australia ..	279,327	40,594	6,857	..	..	326,778
Western Australia ..	199,575	38,441	4,157	..	..	242,173
Tasmania	145,500	9,244	2,084	..	..	156,828
<i>Total State Debt</i>	<i>2,093,752</i>	<i>336,171</i>	<i>65,206</i>	..	..	<i>2,495,129</i>
<i>Commonwealth and State Debt—</i>						
Short-term Debt ..	440,600	..	..	..	..	440,600
Other Debt	3,149,505	416,541	225,584	6,474	12,468	3,810,572
<i>Grand Total Common- wealth and State Debt</i>	<i>3,590,105</i>	<i>416,541</i>	<i>225,584</i>	<i>6,474</i>	<i>12,468</i>	<i>4,251,172</i>

For footnotes see next page.

COMMONWEALTH AND STATE PUBLIC DEBT AND INTEREST PAYABLE
AT 30TH JUNE, 1959 : AUSTRALIAN CURRENCY—*continued*.
(£A.'000.)

Particulars.	Maturing in—					Total.
	Australia.	London. (a)	New York. (b)	Canada. (c)	Switzer- land. (d)	
ANNUAL INTEREST PAYABLE.						
<i>Commonwealth Debt—</i>						
War (1914-18) Debt(e) ..	3,329	286	..	..	..	3,615
War (1939-45) Debt ..	28,560	284	..	..	..	28,844
Works and Other Purposes ..	13,811	2,351	7,219	259	483	24,123
<i>Total Commonwealth Debt</i>	<i>45,700</i>	<i>2,921</i>	<i>7,219</i>	<i>259</i>	<i>483</i>	<i>56,582</i>
<i>State Debt—</i>						
New South Wales ..	28,475	5,364	1,167	..	..	35,006
Victoria ..	20,938	2,121	529	..	..	23,588
Queensland ..	9,949	1,988	453	..	..	12,390
South Australia ..	11,443	1,353	304	..	..	13,100
Western Australia ..	7,984	1,211	184	..	..	9,379
Tasmania ..	5,957	336	98	..	..	6,391
<i>Total State Debt</i> ..	<i>84,746</i>	<i>12,373</i>	<i>2,735</i>	<i>..</i>	<i>..</i>	<i>99,854</i>
<i>Grand Total Common- wealth and State Debt</i>	<i>130,446</i>	<i>15,294</i>	<i>9,954</i>	<i>259</i>	<i>483</i>	<i>156,436</i>

(a) Converted at rate of £Stg.100 = £A.125 10s. (b) Converted at rate of \$2.2392 = £A.1.
(c) Converted at rate of \$2.1364 = £A.1. (d) Converted at rate of 9.625 francs = £A.1. (e) See footnote (b) page 859.

6. Public Debt at each Rate of Interest.—The following table shows particulars of the amounts of debt for Commonwealth and State purposes at 30th June, 1959, at each rate of interest:—

COMMONWEALTH AND STATE PUBLIC DEBT AT 30th JUNE, 1959: AMOUNTS
AT EACH RATE OF INTEREST.

Rate of Interest.	Maturing in—							Total.	
	Australia.		London.		New York.		Other Overseas.		
	Com- mon- wealth.	State.	Com- mon- wealth. (a)	State.	Com- mon- wealth.	State.	Com- mon- wealth.	Com- mon- wealth.	State.
Per cent.	£A.'000.	£A.'000.	£Stg.'000	£Stg.'000	£'000.(b)	£'000.(b)	£'000.(b)	£'000.(b)	£'000.(b)
6.0 ..	..	..	..	16,000	..	..	..	..	16,000
5.5 ..	..	..	9,501	32,420	..	..	..	9,501	32,420
5.0 ..	227,355	396,637	..	1	2,066	7,181	..	229,421	403,819
4.75 ..	38,320	62,866	..	..	36,001	4,285	..	74,321	67,151
4.625 ..	..	..	..	..	10,488	..	..	..	10,488
4.5 ..	159,380	615,250	..	11,790	250	4,664	..	159,630	631,704
4.2625 ..	52	..	..	..	..	..	..	52	..
4.25 ..	..	..	..	..	17,797	..	..	17,797	..
4.0 ..	76,384	295,399	5,655	22,192	..	562 (c)	8,968	91,007	318,153
3.875 ..	49	704	..	..	..	..	..	49	704
3.75 ..	10,150	69,925	..	..	3,035	1,529 (d)	6,125	19,310	71,454
3.625 ..	..	107	..	..	..	..	..	..	107
3.5 ..	..	5,127	5,667	25,159	1,058	6,821	..	6,725	37,107
3.4875 ..	..	2	..	..	..	..	..	..	2
3.375 ..	..	..	..	..	3,099	4,961	..	3,099	4,961
3.25 ..	340,334	74,079	33,427	56,082	..	..	..	373,761	130,161
3.2391 ..	7,151	..	..	..	..	..	..	..	..
3.125 ..	174,870	472,941	..	..	..	..	..	174,870	472,941
3.1 ..	..	3,601	..	..	..	..	..	..	3,601
3.0 ..	..	31,647	9,790	69,844	..	..	..	9,790	101,491
2.8347 ..	3,481	..	..	..	..	..	..	3,481	..
2.75 ..	..	..	..	15,935	..	..	..	..	15,935
2.7125 ..	..	375	..	..	..	..	..	..	375
2.5 ..	..	2	..	18,441	..	..	..	..	18,443
2.325 ..	..	1,522	..	..	..	..	..	..	1,522
1.5 ..	..	3,264	..	..	..	..	..	..	3,264
1.0 ..	440,600	34,077	..	..	..	..	..	440,600	34,077
Special Bonds	..	..	..	..	..	..	..	..	..
Series "A" (e)	13,544	19,825	..	..	..	..	..	13,544	19,825
Special Bonds	..	..	..	..	..	..	..	..	..
Series "B" (e)	2,483	6,402	..	..	..	..	..	2,483	6,402
Miscellaneous (f)	2,200	..	..	2	..	..	..	2,200	2
Total Debt ..	1,496,353	2,093,752	64,040	267,866	73,794	30,003	15,093	1,649,280	2,391,621

(a) Excludes War (1914–18) Debt due to United Kingdom £79,724,000 (rate of interest 4.91667 per cent.). (b) See § 1, p. 857. (c) Swiss debt, £6,126,000; Canadian debt £2,842,000.
(d) Swiss debt. (e) See para. 2 (ii) p. 869. (f) Consists of overdue debt, War (1914–18) and (1939–45) Savings Stamps and National Savings Stamps, etc.

7. Dates of Maturity.—(i) *Commonwealth.* In the following table the Commonwealth Public Debt at 30th June, 1959 is classified according to the earliest and the latest years of maturity.

**COMMONWEALTH PUBLIC DEBT AT 30th JUNE, 1959(a) : CLASSIFIED
ACCORDING TO EARLIEST AND LATEST YEARS OF MATURITY.**

Year of Maturity.	Earliest Year.					Latest Year.				
	Maturing in—				Total.	Maturing in—				Total.
	Aus- tralia.	Lon- don.	New York.	Other Overseas.		Aus- tralia.	Lon- don.	New York.	Other Overseas.	
	£A.'000.	£Stg. '000.	£'000b	£'000.(b)	£'000.(b)	£A.'000.	£Stg. '000.	£'000b	£'000.(b)	£'000.(b)
Before 30th June, 1959 ..	375,232	16,106	4,157	..	395,495	..	..	..	..	..
1959-60(c) ..	496,417	..	..	..	496,417	619,497	..	..	..	619,497
1960-61 ..	74,133	5,655	..	..	79,788	143,027	16,106	..	..	159,133
1961-62 ..	64,085	5,667	..	..	69,752	136,067	..	3,099	..	139,166
1962-63 ..	86,673	..	..	..	86,673	76,504	..	..	..	76,504
1963-64 ..	..	..	..	..	..	62,641	5,655	..	..	68,296
1964-65 ..	19,908	292	..	(d) 6,125	26,325	68,543	..	..	..	68,543
1965-66 ..	10,259	17,029	..	(d) 6,126	33,414	20,428	..	..	..	20,428
1966-67 ..	57,025	..	..	..	57,025	57,025	5,667	1,058	..	63,750
1967-68 ..	31,868	..	..	..	31,868	31,868	..	..	..	31,868
1968-69 ..	70,394	..	..	..	70,394	70,394	..	(d) 6,125	..	76,519
1969-70 ..	..	..	3,035	..	3,035	..	17,029	3,035	(d) 6,126	26,190
1970-71 ..	10,213	6,951	250	(e) 2,842	20,256	10,213	..	250	(e) 2,842	13,305
1971-72 and later ..	171,155	12,340	2,918	..	186,413	171,155	19,583	2,918	..	193,656
Special Bonds Series "A"(f)	13,544	..	..	..	13,544	13,544	..	..	..	13,544
Special Bonds Series "B"(f)	2,483	..	..	..	2,483	2,483	..	..	..	2,483
Miscellaneous(g)	12,964	..	h 63,434	..	76,398	12,964	..	h 63,434	..	76,398
Total ..	1,496,353	64,040	73,794	15,093	1,649,280	1,496,353	64,040	73,794	15,093	1,649,280

(a) See note (a) to previous table. (b) See § 1, p. 857. (c) Includes short-term debt.
 (d) Swiss debt. (e) Canadian debt. (f) See para. 2 (ii) p. 869. (g) Consists of advance loan subscriptions, overdue debt, debt repayable in half-yearly instalments, War Savings and Savings Certificates, War Savings Stamps, National Savings Stamps and Peace Savings Certificates. (h) International Bank Dollar Loans £58,632,000 being repaid in half-yearly instalments from 1st September, 1955 to 1st September, 1975, 1st June, 1957 to 1st December, 1972, 1st March, 1957 to 1st March, 1969, 15th March, 1958 to 15th March 1970, 15th July, 1959 to 15th January, 1972, and from 1st June, 1964 to 1st December, 1966; and Serial Notes £4,802,000 to be repaid in half-yearly instalments from 31st December, 1960 to 31st December, 1964.

(ii) *States.* Particulars of State Public Debt at 30th June, 1959, have been classified in the following table according to the earliest and the latest years of maturity.

STATE PUBLIC DEBT AT 30th JUNE, 1959 : CLASSIFIED ACCORDING TO EARLIEST AND LATEST YEARS OF MATURITY.

Year of Maturity.	Earliest Year.				Latest Year.			
	Maturing in—			Total.	Maturing in—			Total.
	Aus- tralia.	London.	New York.		Aus- tralia.	London.	New York.	
	£A.'000.	£Stg. '000.	£'000.(a)	£'000.(a)	£A.'000.	£Stg. '000.	£'000.(a)	£'000.(a)
Before 30th June, 1959 ..	158,828	31,244	11,781	201,853	122,518	..	..	122,518
1959-60 ..	50,812	..	..	50,812	..	..	..	..
1960-61 ..	279,545	11,790	..	291,335	236,225	18,398	..	254,623
1961-62 ..	251,138	23,319	..	274,457	103,923	..	4,961	108,884
1962-63 ..	314,503	12,656	..	327,159	210,203	11,790	..	221,993
1963-64 ..	2,510	9,590	..	12,100	105,057	..	..	105,057
1964-65 ..	84,102	12,896	..	96,998	259,212	12,656	..	271,868
1965-66 ..	62,972	64,157	..	127,129	167,272	9,590	..	176,862
1966-67 ..	129,660	..	..	129,660	129,660	23,319	6,820	159,799
1967-68 ..	152,737	15,935	..	168,672	152,737	25,444	..	178,181
1968-69 ..	205,786	..	..	205,786	205,786	..	..	205,786
1969-70 ..	3,242	18,441	1,529	23,212	3,242	40,554	1,529	45,325
1970-71 ..	44,683	..	4,664	49,347	44,683	11,006	4,664	60,353
1971-72 ..	2,177	12,175	2,920	17,272	2,177	15,934	2,920	21,031
1972-73 ..	75,761	10,000	4,285	90,046	75,761	10,000	4,285	90,046
1973-74 ..	3,336	..	..	3,336	3,336	12,175	..	15,511
1974-75 ..	55,255	16,000	..	71,255	55,255	31,337	..	86,592
1975-76 ..	89,675	26,771	..	116,446	89,675	..	..	89,675
1976-77 ..	6,001	..	..	6,001	..	16,000	..	22,001
1977-78 ..	7,088	..	..	7,088	7,088	4,351	..	11,439
1978-79 ..	8,359	..	4,261	12,620	8,359	22,420	4,261	35,040
1979-80 ..	42,263	..	..	42,263	42,263	..	..	42,263
1980-81 and later ..	14,284	..	..	14,284	14,284	..	..	14,284
Special Bonds Series "A" ^b ..	19,825	..	..	19,825	..	..	..	19,825
Special Bonds Series "B" ^b ..	6,402	..	..	6,402	..	..	..	6,402
Miscellaneous(c) ..	22,808	2,892	563	26,263	22,808	2,892	563	26,263
Total ..	2,093,752	267,866	30,003	2,391,621	2,093,752	267,866	30,003	2,391,621

(a) See § 1, p. 857. (b) See para. 2 (ii) p. 869. (c) Consists of overdue indefinite and interminable debt, debt due at Treasurer's option and half-yearly drawings.

8. **Short-term Debt.**—(i) *Amount.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at 30th June, 1939 and at intervals from 30th June, 1955, to 30th June, 1959, are shown in the following table. This debt is included in the public debt as shown elsewhere.

COMMONWEALTH AND STATE SHORT-TERM DEBT.(a)

Date.	Maturing in Australia. (£A.'000.)			Maturing in London. (£Stg.'000.)		
	Common- wealth.	States.	Total.	Common- wealth.	States.	Total.
30th June, 1939 ..	..	50,228	50,228	4,220	23,155	27,375
.. .. 1954 ..	190,000	..	190,000	470	22,868	23,338
.. .. 1955 ..	160,000	..	160,000	220	26,068	26,288
.. .. 1956 ..	165,000	..	165,000	..	26,068	26,068
30th September, 1957 ..	185,000	3,000	188,000	..	..	..
31st December, 1957 ..	251,000	8,500	259,500	..	..	..
31st March, 1958 ..	241,000	6,000	247,000	..	..	..
30th June, 1958 ..	140,000	..	140,000	..	..	..
30th September, 1958 ..	195,000	3,000	198,000	..	..	..
31st December, 1958 ..	282,000	5,000	287,000	..	..	..
31st March, 1959 ..	239,000	4,250	243,250	..	..	..
30th June, 1959 ..	171,000	..	171,000	..	..	..

(a) Excludes Overdrafts and Internal Treasury Bills.

(ii) *Interest Rates.* (a) *London.* The rates of interest payable on Treasury Bills and Debentures in London during the following periods were: 1938-39—minimum rate, 2 per cent., maximum rate, 2½ per cent.; 1949-50 to 1950-51—minimum rate, 2 per cent., maximum rate, 2½ per cent. On 8th November, 1951, the rates were increased to—minimum rate, 2½ per cent., maximum rate, 2¾ per cent.

(b) *Australia.* The Treasury Bill rates in Australia were as follows:—1½ per cent. from 1st January, 1935; 1½ per cent. from 1st May, 1940; 1½ per cent. from 1st May, 1943; 1 per cent. from 1st March, 1945; ¾ per cent. from 1st May, 1949; 1 per cent. from 1st August, 1952.

9. *State and Municipal and Semi-governmental Authority Public Debt.*—For the reasons indicated on page 863, direct comparisons of the debts of the several States should be made with caution. The table following shows, for 1938-39 and 1953-54 to 1957-58, particulars of the debts of the States and the debts due to the public by municipal and semi-governmental authorities in each State.

STATE AND MUNICIPAL AND SEMI-GOVERNMENTAL AUTHORITY PUBLIC DEBT.

State.				State.	Municipal. (a)	Semi-Gov- ernmental. (a)	Total.
DEBT. (£'000.) (b) 1957-58.							
New South Wales	..	..	..	787,462	66,632	227,781	1,081,875
Victoria	..	..	..	518,213	33,616	357,482	909,311
Queensland	..	..	..	285,947	73,294	62,033	421,274
South Australia	..	..	..	294,821	3,981	25,256	324,058
Western Australia	..	..	..	218,428	8,327	15,525	242,280
Tasmania	..	..	..	143,061	9,788	13,397	166,246
Total	1957-58			2,247,932	195,638	701,474	3,145,044
	1956-57			2,106,477	183,471	630,146	2,920,094
	1955-56			1,962,027	170,839	570,068	2,702,934
	1954-55			1,825,727	158,712	505,710	2,490,149
	1953-54			1,688,948	141,642	440,602	2,271,192
	1938-39			897,772	78,126	120,512	1,096,410

DEBT PER HEAD OF POPULATION.

(£.) (b)

1957-58.

New South Wales	..	..	..	213.5	18.1	61.7	293.3
Victoria	..	..	..	189.0	12.3	130.4	331.7
Queensland	..	..	..	201.7	51.7	43.8	297.2
South Australia	..	..	..	328.8	4.4	28.2	361.4
Western Australia	..	..	..	309.7	11.8	22.0	343.5
Tasmania	..	..	..	426.5	29.2	39.9	495.6
Total	1957-58			229.7	20.0	71.8	321.5
	1956-57			219.7	19.1	65.7	304.5
	1955-56			209.3	18.3	60.7	288.3
	1954-55			199.5	17.4	55.2	272.1
	1953-54			188.9	16.0	49.2	254.1
	1938-39			129.2	11.2	17.4	157.8

(a) Due to the public and excludes amounts due to the Central Government. Includes bank overdrafts.
(b) See § 1, p. 857.

§ 4. Commonwealth Loan Raisings.

1. **General.**—Under the Financial Agreement between the Commonwealth and the States, the Commonwealth is responsible for raising all loan moneys required either by the Commonwealth or by the State Governments. Details of loan transactions given in this section relate therefore, to all loans raised for the Commonwealth and the States.

2. **New Loans Raised, 1956-57 to 1958-59.**—(i) *Australia.* The following table shows details of new loans raised in Australia by the Commonwealth during the three years 1956-57 to 1958-59.

COMMONWEALTH NEW LOANS(a) RAISED IN AUSTRALIA.

Month of Raising.	Amount Invited.	Amount Subscribed.	Rate of Interest per annum.	Year of Maturity.	Price of Issue per £100.	Allocation of Proceeds.		
						Commonwealth.		States.
						War (1939-45) etc.	Other Purposes.	
	£'000.	£'000.	%		£	£'000.	£'000.	£'000.
1956-57—								
August (Loan No. 99) ..	30,000	{ 14,085 9,734 7,636	{ 3½ 5 5	1957 1963 1976	99 15s. 99 15s. 100	..	23	31,432
October (Loan No. 101) ..	29,184	{ 12,593 7,998 9,506	{ 4 5 5	1958 1965 1976	99 10s. 100 100	..	5	30,092
March (Loan No. 102) ..	35,000	{ 12,202 14,008 10,092	{ 4 5 5	1958 1965 1976	100 100 100	..	32	36,270
June (Loan No. 104) (b) ..	99,000	{ 40,000 30,000 29,000	{ 4 5 5	1958 1965 1976	100 100 100	7,115	31,931	59,954
1957-58—								
August (Loan No. 105) ..	30,000	{ 9,539 15,637 6,252	{ 4 5 5	1959 1965 1976	99 5s. 100 100	..	28	31,400
November (Loan No. 107) ..	30,000	{ 14,468 9,909 8,183	{ 4 5 5	1960 1967 1973	99 100 100	..	10	32,550
April (Loan No. 109) ..	35,000	{ 10,807 5,370 23,073	{ 4 4½ 5	1961 1967 1973	98 17s. 6d. 99	..	9	39,241
June (Loan No. 111) (b) ..	92,000	{ 31,000 27,000 34,000	{ 4 4½ 5	1961 1967 1973	98 17s. 6d. 99	8,262	31,605	52,133
1958-59—								
October (Loan No. 112) ..	30,000	{ 13,078 4,748 18,971	{ 4 4½ 5	1960 1967 1974	99½ 99½ 100	..	1	36,796
February (Loan No. 114) ..	25,000	{ 35,945 3,996 20,252	{ 4 4½ 5	1961 1967 1974	99½ 99½ 100	..	1	60,192
May (Loan No. 115) ..	35,000	{ 14,139 3,309 33,103	{ 4 4½ 5	1962 1968 1979	99½ 99½ 100	..	21,499	29,052
June (Loan No. 117)(b) ..	10,000	{ 10,000	{ 5	1979	100	6,547	3,453	..

(a) Includes loans raised for redemption of Treasury Bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (see below).
(b) Special issue. For details see following paragraph.

The loans of £99,000,000, £92,000,000 and £10,000,000 raised in June, 1957, 1958 and 1959 respectively were for the purpose of fulfilling an undertaking given by the Commonwealth that the States would have access to loan funds for their works programmes up to the approved Loan Council borrowing programmes. These programmes totalled £192,000,000 in 1956-57, £200,000,000 in 1957-58 and £210,000,000 in 1958-59. Subscriptions to these special loans came from the following sources:—

SPECIAL LOANS: SOURCE OF FINANCE.

	1956-57.	1957-58.	1958-59.
	£	£	£
National Debt Commission—			
Investment of Australian currency proceeds of			
International Bank Loan	3,000,000	9,600,000	..
Loan Consolidation and Investment Reserve			
Trust Account	96,000,000	82,400,000	10,000,000
Total	99,000,000	92,000,000	10,000,000

Finance for the approved Loan Council programmes from 1956-57 to 1958-59 was provided from the following sources—

LOAN COUNCIL PROGRAMME(a): SOURCE OF FINANCE.

	1956-57.	1957-58.	1958-59.
	£	£	£
Public Loans, domestic raisings, etc.	98,822,000	105,900,000	177,300,000
Oversea Loans and Special Commonwealth			
Assistance.. .. .	93,178,000	94,100,000	32,700,000
Total	192,000,000	200,000,000	210,000,000

(a) Excludes amounts provided for War Service Land Settlement; 1956-57, £7,115,000; 1957-58, £8,262,000 and for Emergency Wheat Storage, 1958-59, £6,547,000.

In addition to the new loans raised as shown in the foregoing tables and the redemption and conversion loans shown in the following section, there were other miscellaneous debt operations during 1958-59 namely:—Savings Certificates and War Savings Certificates (Five and Seven Years' Series) a decrease of £5,371,000; War Savings and Savings Stamps, a decrease of £1,000; National Savings Bonds and Stamps, a decrease of £1,000; and "Over the Counter Sales" (small amounts borrowed by the States by virtue of certain statutory rights) £3,008,000. Advance loan subscriptions in hand increased from £1,443,000 at the end of 1957-58 to £1,663,000 at the end of 1958-59.

(ii) *Special Bonds.* In October, 1958, in addition to loan No. 112, subscriptions were invited to special bonds open for continuous subscription and the cash proceeds to the 24th April, 1959, totalled £22,037,000. These bonds are redeemable at any time after 1st July, 1959, at prices commencing at par and increasing to a premium of £3 per cent. if the bonds are held to maturity at 1st January, 1966. Interest is 4 per cent. for approximately the first two years, 4½ per cent. for the next two years and 5 per cent. for the next three years. As from 25th April, 1959, continuous subscriptions were invited to Special Bonds Series "B" and subscriptions up to the end of September, 1959, totalled £12,966,000. The terms of issue of the two series of special bonds are similar except that interest for Series "B" bonds for the third year is 4 per cent. instead of 4½ per cent. Series "B" bonds are redeemable at any time after 1st April, 1960, and mature on 1st October, 1966. The maximum combined holding for each person in Series "A" and "B" bonds is £5,000.

(iii) *London.* The following table gives details of the cash loan raised in London in October, 1958:—

COMMONWEALTH NEW LOAN RAISED IN LONDON.

Month of Raising.	Amount of Loan.	Rate of Interest per annum.	Price of Issue per £100 stg.	Year of Maturity.	Allocation of Proceeds.	
					Commonwealth.	States.
	£Stg.'000.	%	£Stg.		£Stg.'000.	£Stg.'000.
1958-59—						
October ..	15,000	5½	98	1978	2,560	12,440

(iv) *New York.* A cash loan was raised in New York in June, 1956, which was the first since May, 1928, except for loans raised from the International Bank for Reconstruction and Development (see para. 4. below). The following table gives details of the loans raised during the period 1956-57 to 1958-59.

COMMONWEALTH NEW LOANS RAISED IN NEW YORK.

Month of Raising.	Amount of Loan.	Rate of Interest per annum.	Price of Issue per \$100.	Year of Maturity.	Allocation of Proceeds.	
					Commonwealth.	States.
	\$'000.	%	\$		\$'000.	\$'000.
1956-57—						
November ..	17,770	4½	100	(a) 1960-64	(b) 17,770	..
March ..	2,886	5	100	1972	488	2,398
1957-58—						
April ..	25,000	4½	99	1973	4,145	20,855
1958-59—						
November ..	25,000	5	97.50	1978	4,263	20,737
June ..	11,960	4½	100	1960-65	(b) 11,960	..
June ..	1,560	4½	100	1960-65	(b) 1,560	..
June ..	3,000	4½	100	1960-64	(c) 3,000	..

(a) Repayable in half-yearly instalments. (b) Proceeds used for Qantas Empire Airways Loan.
(c) Proceeds used for Australian National Airlines Loan.

3. Conversion and Redemption Loans, 1956-57 to 1958-59.—(i) *Australia*. Particulars of conversion loans raised in Australia during the three years 1956-57 to 1958-59 are given in the following table:—

COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA.

Month of Raising.	Old Loan.		New Loan.				Increase in Annual Liability for Interest.
	Amount.	Rate of Interest per annum.	Amount.	Rate of Interest per annum.	Price of Issue per £100.	Year of Maturity.	
	£A.'000.	%	£A.'000.	%	£		£A.'000.
1956-57—	16,050	3	20,888	3½	99 15s.	1957	292
August ..	54,124	3½	22,157	5	99 15s.	1963	
	250	3½	13,044	5	100	1976	
October ..	40,816	3	18,204	4	99 10s.	1958	427
			12,661	5	100	1965	
			5,614	5	100	1976	
December ..	5,575	3	2,800	4	99 12s. 6d.	1958	84
			2,775	5	100	1976	
			102,570	4	100	1958	
March ..	141,931	3	10,066	5	100	1965	1,217
			17,481	5	100	1976	
1957-58—			98,650	4	99 5s.	1959	516
August ..	150,527	3½	9,592	5	100	1965	
			34,701	5	100	1976	
November ..	75,293	3½	21,457	4	99	1960	119
			26,233	5	100	1967	
			7,913	5	100	1973	
April ..	173,371	4	108,578	4	98 17s. 6d.	1961	-757
			10,651	4½	99	1967	
			26,577	5	100	1973	
1958-59—							
October ..	218,192	3½	54,894	4	99 17s. 6d.	1960	506
			24,543	4½	99 2s. 6d.	1967	
			75,647	5	100	1974	
			11,332	4-5	100	1966	-294
May ..	108,189	4	50,951	4	99 10s.	1962	
			21,563	4½	99 10s.	1968	
			16,395	5	100	1979	
			3,781	4-5	100	1966	

NOTE.—Minus sign (—) indicates reduction in liability for interest.

(ii) *London*. The following table shows particulars of loans raised in London during the years 1956-57, 1957-58 and 1958-59 for the purpose of redeeming and converting London loans.

COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND REDEMPTION OF LOANS MATURING IN LONDON.

Month of Raising.	Old Loan.		New Loan.					Increase in Annual Liability for Interest and Exchange. (a)
	Amount.	Rate of Interest per annum.	Amount raised in—		Rate of Interest per annum.	Price of Issue per £100.	Year of Maturity.	
			Australia.	London.				
	£Stg. '000.	%	£A. '000.	£Stg. '000.	%	£		£A. '000.
1956-57—								
July ..	(b) 3,200	5½	4,000	..	5	100	1963	— 5
August ..	{ b 1,491	2½	28,708	..	3½	99 15s.	1957	293
October ..	{ c 21,377	2½	..	6,951	5½	97 10s.	1972	153
	6,951	3½						
1957-58—								
February ..	16,000	3	..	16,000	6	99 10s.	1976	602
1958-59—								
March ..	20,000	3½	..	20,000	5½	99	{ 1973 1979 }	400

(a) No account has been taken of the cost of issuing the conversion loans at a discount. Exchange calculated at £A. 125.375 = £Stg. 100. (b) Debentures. (c) Treasury Bills.

(iii) *New York.* During 1946-47, four loans totalling \$128,000,000 were raised in New York to redeem loans which became due for redemption or which the Commonwealth had the option of redeeming. No further loans were raised in New York for this purpose until December, 1954. The following table shows particulars of the redemption loan raised in 1956-57. There were no loans raised for this purpose in 1957-58 and 1958-59.

COMMONWEALTH LOAN RAISED IN NEW YORK FOR REDEMPTION OF EXISTING LOANS.

Month of Raising.	Old Loan.		New Loan.				Increase in Annual Liability for Interest.	
	Amount.	Rate of Interest per annum.	Amount.	Rate of Interest per annum.	Price of Issue per \$100.	Year of Maturity.	United States of America Currency.	Australian Currency.
	\$'000.	%	\$'000.	%	\$.		\$'000.	£A. '000.
1956-57—								
March ..	17,114	3½	17,114	5	100	1972	299	(a) 135

(a) Converted at selling rate of exchange on 30th June, 1957, \$2.2208 = £A1.

4. *International Bank for Reconstruction and Development Loans.*—To provide dollar funds for the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could be obtained only in the United States of America or Canada, the Commonwealth Government has arranged loans from the International Bank for Reconstruction and Development since August, 1950, as shown in the following table—

LOANS FROM THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT.

Month of Raising.	Amount.	Date Loan Fully Drawn.	Term.	Rate of Interest. (a)	Repayment—Half-Yearly Instalments.	
					From.	To.
1950—August ..	\$'000. 100,000	31.12.53	years. 25	4½	Sept., 1955	Sept., 1975
1952—July ..	50,000	30.9.54	20	4½	June, 1956	Dec., 1972
1954—March ..	54,000	30.9.55	15	4½	March, 1957	March, 1969
1955—March ..	54,500	31.12.56	15	4½	March, 1958	March, 1970
1956—November ..	(b) 9,230	31.12.58	10	4½	June, 1964	Dec., 1966
1956—December ..	50,000	31.3.59	15	4½	July, 1959	Jan., 1972

(a) There is also a commitment charge of ½ per cent. per annum on the amount of the loan not withdrawn from time to time. (b) The proceeds of this loan were advanced to Qantas Empire Airways.

The capital equipment and plant purchased from the proceeds of these loans are made available to Commonwealth and State Government departments and agencies and private firms and individuals for use in the development of Australian resources. Subject to a special import licence being obtained, the goods are imported and distributed through normal channels and payment made through the Australian banking system. Periodically, schedules of dollar payments for goods imported against loan licences are submitted to the International Bank for Reconstruction and Development. These schedules form the basis for periodical drawings by the Commonwealth against the loan. The amounts drawn are paid to the Commonwealth Bank to replace the dollar funds used in making the purchases. In return, the Commonwealth Government receives Australian currency from the Commonwealth Bank. This is paid to the Commonwealth National Debt Sinking Fund out of which the loans will subsequently be redeemed.

5. Swiss Loan.—To foster industrial development in Australia and to stimulate trade relations between the two countries, the Commonwealth Government arranged for the issue in Switzerland in November, 1953, and February, 1955, of two public loans each of 60,000,000 Swiss francs. The loans were underwritten by a Swiss banking group headed by the Swiss Bank Corporation, the Crédit Suisse and the Union Bank of Switzerland. Certain Swiss taxes connected with the issue and servicing of the loan were paid on an agreed basis by the Australian Government.

The first loan was for a period of 15 years with an option on the part of the Australian Government to repay the loan in full or in part after 12 years. The rate of interest was 4 per cent. and the issue price £99. Bondholders have the option of requiring payment either in Australian pounds or in the foreign currency equivalent of Australian pounds.

The second Swiss loan was for a period of 15 years with an option to redeem after 10 years. The rate of interest was $3\frac{1}{2}$ per cent. and the issue price £99 10s. Bonds and interest are payable only in Swiss francs.

The loans were both fully subscribed and Swiss franc proceeds, after deducting borrowing expenses, were sold by the Commonwealth Government to the Commonwealth Bank in return for an equivalent amount of Australian currency. A trust account, named the Swiss Loan Trust Account, was opened and the proceeds from the two loans were transferred to this account and were used in assisting the Loan Council borrowing programmes for the 1953–54 and 1954–55 financial years. The Swiss Loan Trust Account will also be used as a sinking fund for the loans, and, when the time comes for repayment, the trust account investments will be realized. The provisions of the National Debt Sinking Fund Act do not apply to the loans.

6. Canadian Loan.—In October, 1955, the Commonwealth Government arranged for the issue in Canada of a public loan of 15,000,000 Canadian dollars raised to assist Australia's development programme. The loan was underwritten by Wood, Gundy & Company Limited of Toronto, Canada.

The loan was for a period of 15 years with an option on the part of the Australian Government to repay the loan in full or in part at any time prior to 1st November, 1970. The rate of interest was 4 per cent. payable half-yearly and the issue price \$98.50. Bonds and interest are payable in Canadian dollars.

The loan was fully subscribed and the net Canadian dollar proceeds were sold to the Commonwealth Bank for Australian currency. A trust account, named the Canadian Loan Trust Account, was opened and the Australian currency proceeds of the loan were transferred to this account and used in assisting the Loan Council borrowing programme in 1955–56.

The Canadian Loan Trust Account will provide the necessary sinking fund payments and, when the time comes for repayment, the Trust Account investments will be realized to provide funds for that purpose. The provisions of the National Debt Sinking Fund Act do not apply to this loan.

7. Summary of Loan Transactions, 1954–55 to 1958–59.—The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1954–55 to 1958–59.

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY.

Details.	Year ended 30th June—				
	1955.	1956.	1957.	1958.	1959.
New Loans—					
New Loans (a) raised in—					
Australia £A.'000.	175,753	193,919	196,854	195,236	184,656
London £Stg.'000.	..	..	..	..	15,000
New York(b) \$'000.	52,821	50,355	23,536	65,091	58,351
Switzerland Francs '000.	60,000	..	..	..	..
Canada \$'000.	..	15,000	..	..	..
Miscellaneous Debt in Australia (c) £A.'000.	3,429	8,269	—3,214	1,229	3,130
Net Increase in Short Term Debt—					
Australia—Public £A.'000.	—30,000	5,000	—15,000	—10,000	31,000
Internal £A.'000.	34,600	—8,200	20,200	12,500	5,300
London £Stg.'000.	2,950	—220	—26,068	..	..
Loans raised for Conversion or Redemption of existing Debt maturing in—					
Australia £A.'000.	253,793	120,496	228,260	344,411	259,121
London—					
Raised in Australia £A.'000.	..	..	32,708	..	..
London £Stg.'000.	..	..	6,951	16,000	20,000
New York \$'000.	25,000	18,028	17,114	..	..

(a) Includes loans raised for redemption of Treasury Bills. (b) Includes amounts drawn of \$100,000,000, \$50,000,000, \$54,000,000, \$54,500,000, \$9,230,000 and \$50,000,000, loans from International Bank for Reconstruction and Development. (c) "Over the Counter Sales", Instalment Stock, National Savings Bonds, War Savings and Savings Certificates and net increase in debt on account of advance loan subscriptions and, until the discontinuance of sales, War Savings and Savings Stamps and National Savings Stamps.

NOTE.—Minus sign (—) denotes a decrease in debt.

8. Commonwealth and State Public Debt Maturing in Australia Classified by Holder.—The following table shows details of Commonwealth and State Public Debt maturing in Australia classified according to holder as at the 30th June, 1958 and 1959:—

COMMONWEALTH AND STATE PUBLIC DEBT MATURING IN AUSTRALIA CLASSIFIED BY HOLDER.(a)

Holder.	At 30th June—			
	1958.		1959.	
	Amount £ million.	Proportion of Total.	Amount £ million.	Proportion of Total.
		%		%
Commonwealth Bank	440.5	12.4	432.5	12.1
Trading Banks	234.2	6.6	311.8	8.7
Savings Banks	721.1	20.3	744.3	20.7
Life Assurance Offices(b)	218.3	6.2	218.0	6.1
Fire, Marine and Accident Insurance Offices (b)	72.9	2.1	76.5	2.1
Government Pension and Provident Funds	37.0	1.0	40.5	1.1
Other Pensions and Provident Funds ..	37.1	1.0	33.9	0.9
Commonwealth and State Governments or Local and Semi-Governmental Authorities	885.3	24.9	792.3	22.1
Marketing Boards and Stabilization Funds	18.8	0.5	19.3	0.5
Trustee Offices	105.2	3.0	103.7	2.9
Money Market Dealer .. ..	..	..	49.0	1.4
Companies not elsewhere included ..	82.5	2.3	96.5	2.7
All Other Holders	701.2	19.7	671.8	18.7
Total	3,554.1	100.0	3,590.1	100.0

(a) Total Stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills debentures, and Savings Certificates. (b) Holdings by State Government insurance offices are excluded from "Life Assurance" and included in "Fire, Marine, etc."

§ 5. National Debt Sinking Fund.

1. **Commonwealth Public Debt.**—Particulars relating to the creation of sinking funds are included in issues of the Official Year Book prior to No. 23.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1938–39 and 1954–55 to 1958–59 were as follows:—

NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT.
(£'000.)

Item.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Receipts—						
From Consolidated Revenue	3,918	14,115	15,412	15,292	14,301	14,376
Loans and Advances Repaid	17	2,007	2,212	2,986	2,881	3,213
War Service Homes Money Repaid	629	5,734	5,865	5,660	6,566	7,560
Half Net Profit Commonwealth Bank	321	2,835	3,112	3,918	4,961	5,749
Reparation Moneys	..	2,662	..	200	63	20
Interest on Investments	32	(a) 4,621	(a) 7,997	(a) 9,169	(a) 9,413	(a) 9,015
Loan (International Bank for Reconstruction and Development) Act	..	..	..	..	..	..
Other Contributions	14	3	2	2	1	..
Total Receipts	4,931	55,552	53,969	42,594	52,750	47,425
Expenditure—						
Securities Repurchased and Redeemed in—						
Australia	4,230	36,218	17,955	32,891	60,001	64,799
London	608	609	298	88	318	189
New York	214	4,488	(b) 1,525	(b) 3,031	(b) 5,172	(b) 6,029
Total Expenditure	5,052	41,315	19,778	36,010	65,491	71,017
Balance at 30th June	1,131	202,310	236,501	243,085	230,344	206,752
Face Value of Securities Repurchased and Redeemed in—						
Australia	4,199	37,312	19,149	34,718	61,017	65,421
London	498	492	240	137	305	185
New York	167	2,065	(b) 699	(b) 1,397	(b) 2,387	(b) 2,783
Total Face Value	4,864	39,869	20,088	36,200	63,709	68,389

(a) Includes interest received under National Debt Sinking Fund (Special Payment) Act 1951 £2,149,000 in 1954–55, £3,683,000 in 1955–56, £4,205,000 in 1956–57, £3,936,000 in 1957–58, and £3,383,000 in 1958–59. (b) Includes instalment repayments of loans from International Bank for Reconstruction and Development. 1955–56, net cost £1,407,000; face value, £645,000; 1956–57, net cost, £2,668,000; face value, £1,221,000; 1957–58, net cost £4,733,000; face value £2,173,000; and 1958–59, net cost £5,688,000; face value £2,618,000.

2. **States' Public Debt.**—(i) *States, 1958–59.* A sinking fund for the redemption of the debt of the States was established under the Financial Agreement. Details of contributions to be made to this fund are given on page 858. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1958–59 are shown below.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1958–59.
(£'000.)

Item.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	1,894	1,230	671	715	526	350	5,386
States	6,385	4,647	2,378	2,892	1,876	983	19,161
Interest from States on cancelled Securities	3	1	1	1	1	1	8
Special Contributions by States	132	42	..	63	1	1	239
Interest on Investments, etc.	13	13	7	4	6	4	47
Total Receipts	8,427	5,933	3,057	3,675	2,410	1,339	24,841
Expenditure—							
Securities Repurchased and Redeemed in—							
Australia	7,466	5,020	2,613	2,746	2,248	1,266	21,359
London	301	752	246	377	103	20	1,799
New York	368	93	95	415	46	7	1,024
Total Expenditure	8,135	5,865	2,954	3,538	2,397	1,293	24,182
Balance at 30th June, 1959	352	128	142	184	86	75	967
Face Values of Securities Repurchased and Redeemed in—							
Australia	7,495	5,042	2,620	2,758	2,248	1,272	21,435
London	223	480	172	335	100	20	1,330
New York	173	45	46	192	22	3	481
Total Face Value	7,891	5,567	2,838	3,285	2,370	1,295	23,246

(ii) *All States, 1938-39 and 1954-55 to 1958-59.* The following table is a summary of the transactions of the National Debt Sinking Fund (States' Account) for the years 1938-39 and 1954-55 to 1958-59:—

NATIONAL DEBT SINKING FUND: STATE ACCOUNT.

(£'000.)

Item.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Receipts—</i>						
Contributions under Financial Agreement—						
Commonwealth ..	1,478	3,947	4,310	4,640	5,065	5,386
States ..	4,327	13,680	15,416	16,317	17,758	19,161
Interest from States on cancelled Securities ..	15	18	26	9	11	8
Commonwealth Contributions under Federal Aid Roads and Works Act ..	69	..	..	..	..	..
Special Contributions by States ..	61	90	90	90	193	239
Interest on Investments, etc. . .	56	16	32	23	36	47
<i>Total Receipts ..</i>	<i>6,006</i>	<i>17,751</i>	<i>19,874</i>	<i>21,079</i>	<i>23,063</i>	<i>24,841</i>
<i>Expenditure—</i>						
Securities Repurchased and Redeemed in—						
Australia ..	4,008	14,540	18,656	20,312	16,567	21,359
London ..	1,722	898	329	857	6,043	1,799
New York ..	347	2,688	773	879	1,011	1,024
<i>Total Expenditure ..</i>	<i>6,077</i>	<i>18,126</i>	<i>19,758</i>	<i>22,048</i>	<i>23,621</i>	<i>24,182</i>
<i>Balance at 30th June ..</i>	<i>1,885</i>	<i>1,719</i>	<i>1,835</i>	<i>866</i>	<i>308</i>	<i>967</i>
<i>Face Value of Securities Repurchased and Redeemed in—</i>						
Australia ..	3,996	14,780	19,235	20,431	16,102	21,435
London ..	1,561	732	275	809	4,866	1,330
New York ..	285	1,236	356	415	476	481
<i>Total Face Value ..</i>	<i>5,842</i>	<i>16,748</i>	<i>19,866</i>	<i>21,655</i>	<i>21,444</i>	<i>23,246</i>

E. TAXES ON INCOME.

NOTE.—The following section contains details of taxes on individuals and companies for the 1958-59 financial year.

1. *General.*—A description of the development of income taxes in Australia appeared in Official Year Book No. 35, page 926. Since July, 1942, the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income. Taxes on income are assessed and imposed under the Income Tax and Social Services Contribution Assessment Act 1936-1959 and the Income Tax and Social Services Contribution Act 1959. The latter Act is an annual measure and its primary purpose is to declare the rates of tax and contribution payable for the financial year. The rates for the financial year are levied, in the case of individuals, on the income of that year and, in the case of companies, on the income of the preceding year. Thus tax for the financial year 1959-60 is levied on the income of individuals in 1959-60 and on the income of companies in 1958-59.

2. Present Taxes.—For individuals, a single tax known as the Income Tax and Social Services Contribution is levied. All companies are liable for primary income tax and, in addition, private companies are subject to tax on undistributed income.

3. Assessable Income.—Income taxes in Australia are levied, primarily, on all income derived from Australian sources by any person, rather than on income derived from all sources by Australian residents. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income other than dividends derived from overseas, if the income is taxed in the country in which it is derived.

Certain types of Australian income are exempt from tax in Australia, the more important being (i) pensions, child endowment and other payments under the Social Services Act 1947–1958 and the Tuberculosis Act 1948, (ii) income from gold-mining and uranium mining, (iii) twenty per cent. of certain mining profits, (iv) dividends paid out of exempt mining profits, and (v) income received from a scholarship, bursary or other education allowance.

No amount is included in assessable income on account of a house occupied by its owner. Profits derived from the sale of property are not assessable income if such property was not purchased with a view to resale at a profit.

Expenses incurred in earning income, certain subscriptions to business associations, and trade union dues, are allowable deductions. Losses incurred in previous years may be carried forward as a deduction.

Because of uncongenial climatic conditions, isolation, and high cost of living, taxpayers living in certain areas are allowed an additional deduction. Two zones have been prescribed, and the allowances are:—Zone A, £270 plus an amount equal to one half of the total deductions allowable to the taxpayer for the maintenance of dependants; and Zone B, £45 plus an amount equal to one twelfth of the deductions allowable to the taxpayer for the maintenance of dependants. A deduction equal to the deduction allowed to residents of Zone A is also allowed to members of the defence forces serving for more than one half of the year of income at declared localities outside Australia.

Income Tax and Social Services Contribution is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in the following paragraph.

4. Concessional Deductions.—Concessional allowances for dependants, medical expenses, life assurance and superannuation contributions, etc., are made by way of a deduction from income. The maximum deduction allowed for each dependant, for a parent or parent-in-law, or for a housekeeper employed by the taxpayer for the financial year 1959–60 is shown in the following table.

CONCESSIONAL DEDUCTIONS FOR DEPENDANTS, ETC.(a)

(£.)

Dependant, etc. (Resident).	Maximum Deduction.
Spouse	143
Daughter-housekeeper (b)	143
Housekeeper (b) having care of taxpayer's children under 16 years of age	143
Parent or Parent-in-law	143
One child under 16 years of age	91
Other children under 16 years of age	65
Invalid relative(c)	91
Child 16 to 21 years receiving full-time education (d)	91

(a) These deductions are allowed only if the dependant, parent or parent-in-law is a resident of Australia. If the dependant is maintained for part only of the year a partial deduction is allowed. (b) Of a widower or widow. (c) Child, step-child, brother or sister over 16 years of age. The amount of the deduction is reduced by any invalid pension received. (d) The amount of the deduction is reduced by the value of any assistance provided by the Commonwealth or a State.

When the dependant or person maintained derives separate income, the amount of the concessional deduction allowable is reduced as follows:—

In the case of a spouse or daughter-housekeeper, by £2 for every £1 by which the separate net income exceeds £65; for each parent or parent-in-law maintained, by £1 for each £1 of separate income; and for each dependent child or invalid relative, by £2 for every £1 by which the separate net income exceeds £52.

For the 1959–60 financial year, medical expenses paid by a taxpayer who is a resident, in respect of himself or dependants, including children under 21 years of age, up to £150 for each person, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or to a hospital, in respect of an illness or operation, payments for dental services not exceeding £30 for any one person, payment for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, and the remuneration of an attendant of a person who is blind or confined to bed or invalid chair.

Other concessional deductions allowed to resident taxpayers include, (i) payments of life, etc., insurance premiums and contributions to superannuation funds and friendly societies, not exceeding an aggregate of £400, (ii) payments to medical or hospital benefits funds, (iii) funeral expenses of a dependant not exceeding £30 and (iv) expenditure incurred for the full-time education of children or dependants who are less than 21 years of age (maximum £100 per child or dependant).

In addition to concessional deductions, all taxpayers (residents and non-residents) are allowed a deduction from income of rates and taxes on land which are annually assessed, gifts to charitable, benevolent or patriotic funds and one-third of amounts paid as calls to certain mining, forestry and oil-prospecting companies. Resident taxpayers only are allowed a deduction from income of the full amount paid as calls and as application and allotment moneys to certain companies engaged in the search for oil in Australia and New Guinea.

5. Effective Exemption from Tax.—For the financial years 1950–51 to 1959–60, resident taxpayers without dependants were exempt from Income Tax and Social Services Contribution if their income did not exceed £104. The effect of the deductions for dependants was to exempt taxpayers up to the incomes shown hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX.
(£.)

Taxpayer with—	Income Tax and Social Services Contribution— Financial Years 1950–51 to 1952–53.	Income Tax and Social Services Contribution— Financial Years 1953–54 to 1956–57.	Income Tax and Social Services Contribution— Financial Years 1957–58 to 1959–60.
No dependants	104	104	104
Wife	208	234	247
Wife and one child	286	312	338
„ „ two children	338	364	403
„ „ three children	390	416	468
„ „ four children	442	468	533

For the 1959–60 financial year, an aged person (i.e., a man who has attained the age of 65 years or a woman who has attained the age of 60 years) is exempt from Income Tax and Social Services Contribution if his net income (i.e., gross income less expenses of earning that income) does not exceed £429. A married couple both of whom qualify by age for the concession, are exempt from tax if their combined net incomes do not exceed £858.

6. Rates of Income Tax and Social Services Contribution on Individuals.—The following table shows the rates of income tax and social services contribution for the financial years 1953–54 to 1959–60.

**INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—INDIVIDUALS: RATES
OF INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—1953-54 TO 1959-60.**

Total Taxable Income.		1953-54.		1954-55 to 1959-60.(a)	
Column 1.	Column 2.	Tax and Contribution on Amount in Column 1.	Tax and Contribution on each £1 of Balance of Income.	Tax and Contribution on Amount in Column 1.	Tax and Contribution on each £1 of Balance of Income.
Exceeding—	Not Exceeding—				
£	£	£ s. d.	d.	£ s. d.	d.
Nil	100	Nil	1	Nil	1
100	150	0 8 4	4	0 8 4	3
150	200	1 5 0	9	1 0 10	7
200	250	3 2 6	13	2 10 0	11
250	300	5 16 8	17	4 15 10	15
300	400	9 7 6	22	7 18 4	20
400	500	18 10 10	28	16 5 0	26
500	600	30 4 2	33	27 1 8	30
600	700	43 19 2	38	39 11 8	34
700	800	59 15 10	42	53 15 0	38
800	900	77 5 10	46	69 11 8	42
900	1,000	96 9 2	50	87 1 8	46
1,000	1,200	117 5 10	56	106 5 0	52
1,200	1,400	163 19 2	64	149 11 8	59
1,400	1,600	217 5 10	71	198 15 0	65
1,600	1,800	276 9 2	78	252 18 4	71
1,800	2,000	341 9 2	85	312 1 8	77
2,000	2,400	412 5 10	93	376 5 0	85
2,400	2,800	567 5 10	100	517 18 4	92
2,800	3,200	733 19 2	107	671 5 0	99
3,200	3,600	912 5 10	114	836 5 0	105
3,600	4,000	1,102 5 10	121	1,011 5 0	111
4,000	4,400	1,303 19 2	128	1,196 5 0	117
4,400	5,000	1,517 5 10	136	1,391 5 0	124
5,000	6,000	1,857 5 10	144	1,701 5 0	132
6,000	8,000	2,457 5 10	151	2,251 5 0	139
8,000	10,000	3,715 12 6	158	3,409 11 8	145
10,000	16,000	5,032 5 10	165	4,617 18 4	152
16,000	upwards	9,157 5 10	168	8,417 18 4	160

(a) For the 1959-60 financial year, provision was made for a rebate to reduce by 5 per cent. the income tax and social services contribution otherwise payable.

For primary producers, the rate of Income Tax and Social Services Contribution for the current year is determined by the average of the taxable incomes for the five years up to and including the current year. A taxpayer may elect not to have these averaging provisions applied to his assessment, but the election once made, is irrevocable. The application of the averaging provisions is limited to that part of the taxable income which does not exceed £4,000, and when the taxable income exceeds £4,000, the balance is taxed at the ordinary rates applicable to that part. When the taxable income is less than £4,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of £4,000.

Commencing with 1953-54, the taxable income, including any abnormal receipts, of actors, artists, composers and inventors, is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest on Commonwealth Loans issued prior to 1st January, 1940, is subject to the condition that it shall not be taxed at rates higher than those for 1930-31. Interest on Commonwealth Loans issued after 1st January, 1940, and interest on certain State semi-governmental loans issued free of State income tax are subject to a rebate of 2s. for each £1 included in the taxable income.

The minimum amount of Income Tax and Social Services Contribution payable is 10s. and the amounts payable and rebates are calculated to the nearest shilling.

7. **The Income Tax (International Agreements) Act 1953.**—This Act provided for relief from double taxation of incomes flowing between Australia and the United States of America. It also provided similar relief in respect of the United Kingdom, which had been covered by the Income Tax Assessment Act since 1947.

8. **Taxes on Specified Incomes.**—The following table shows the Income Tax and Social Services Contribution payable by taxpayers, with various incomes and numbers of dependants, on income derived in each year from 1952–53 to 1959–60:—

COMMONWEALTH TAXES ON INCOME.

(£.)

Income.	Income Tax and Social Services Contribution.				
	1952–53 Financial Year.	1953–54 Financial Year.	1954–55 to 1956–57 Financial Years.	1957–58 and 1958–59 Financial Years.	1959–60 Financial Year.

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH NO DEPENDANTS.

150	..	..	..	1.65	1.25	1.05	1.05	1.00
200	..	..	..	3.95	3.10	2.50	2.50	2.35
250	..	..	..	7.30	5.85	4.80	4.80	4.55
300	..	..	..	11.65	9.35	7.90	7.90	7.50
350	..	..	..	17.10	13.95	12.10	12.10	11.50
400	..	..	..	22.50	18.55	16.25	16.25	15.45
500	..	..	..	35.85	30.20	27.10	27.10	25.75
600	..	..	..	51.65	43.95	39.60	39.60	37.60
800	..	..	..	90.00	77.30	69.60	69.60	66.10
1,000	..	..	..	135.00	117.30	106.25	106.25	100.95
1,500	..	..	..	281.65	246.85	225.85	225.85	214.55
2,000	..	..	..	468.35	412.30	376.25	376.25	357.45
3,000	..	..	..	928.35	823.10	753.75	753.75	716.05
5,000	..	..	..	2,088.35	1,857.30	1,701.25	1,701.25	1,616.20

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE.

150	..	..	..	..	..	..	..	..
200	..	..	..	..	..	..	..	..
250	..	..	..	1.55	0.75	0.65	0.50	0.50
300	..	..	..	3.75	2.00	1.60	1.25	1.20
350	..	..	..	7.00	4.20	3.60	2.80	2.65
400	..	..	..	11.30	7.25	6.05	5.25	5.00
500	..	..	..	22.05	15.80	13.75	12.65	12.00
600	..	..	..	35.30	26.70	23.85	22.40	21.30
800	..	..	..	69.25	55.05	49.50	47.65	45.25
1,000	..	..	..	110.80	90.70	81.85	79.55	75.55
1,500	..	..	..	247.15	209.30	191.35	188.20	178.80
2,000	..	..	..	426.75	366.25	334.55	330.35	313.85
3,000	..	..	..	876.35	765.15	700.10	694.75	660.00
5,000	..	..	..	2,022.45	1,783.60	1,634.10	1,627.35	1,546.00

COMMONWEALTH TAXES ON INCOME—*continued.*

(£.)

Income.	Income Tax and Social Services Contribution.				
	1952-53 Financial Year.	1953-54 Financial Year.	1954-55 to 1956-57 Financial Years.	1957-58 and 1958-59 Financial Years.	1959-60 Financial Year.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD.					
150 .. .. .	..	..	..	..	..
200 .. .. .	..	..	..	..	..
250 .. .. .	..	..	..	..	..
300	0.85	..	..	..	..
350	2.50	1.10	0.95	0.60	0.55
400	5.15	2.80	2.25	1.50	1.40
500	13.60	8.80	7.40	5.80	5.50
600	24.90	17.80	15.60	13.40	12.75
800	54.95	42.85	38.60	35.35	33.60
1,000	93.90	75.90	68.30	64.20	61.00
1,500	223.75	188.50	172.20	165.80	157.50
2,000	395.55	338.85	309.70	302.00	286.90
3,000	837.35	730.60	668.20	658.20	625.30
5,000	1,973.05	1,739.40	1,593.80	1,580.35	1,501.35

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN.

150 .. .. .	..	..	..	..	..
200 .. .. .	..	..	..	..	..
250 .. .. .	..	..	..	..	..
300 .. .. .	..	..	..	..	..
350	0.80	..	..	..	..
400	2.40	1.10	0.90	..	..
500	8.70	5.30	4.35	2.55	2.40
600	18.80	13.05	11.25	8.00	7.60
800	46.30	35.70	32.10	27.20	25.85
1,000	83.20	66.80	60.10	53.90	51.20
1,500	208.15	174.60	159.40	149.85	142.35
2,000	375.85	321.95	294.35	282.80	268.65
3,000	812.45	708.95	648.25	633.30	601.65
5,000	1,940.15	1,709.95	1,566.90	1,546.75	1,469.40

INCOME FROM PROPERTY.—TAXPAYER WITH NO DEPENDANTS.

150	1.65	1.25	1.05	1.05	1.00
200	3.95	3.10	2.50	2.50	2.35
250	7.30	5.85	4.80	4.80	4.55
300	11.65	9.35	7.90	7.90	7.50
350	17.10	13.95	12.10	12.10	11.50
400	22.50	18.55	16.25	16.25	15.45
500	40.85	30.20	27.10	27.10	25.75
600	61.65	43.95	39.60	39.60	37.60
800	110.00	77.30	69.60	69.60	66.10
1,000	165.00	117.30	106.25	106.25	100.95
1,500	345.00	246.85	225.85	225.85	214.55
2,000	565.00	412.30	376.25	376.25	357.45
3,000	1,091.70	823.10	753.75	753.75	716.05
5,000	2,351.70	1,857.30	1,701.25	1,701.25	1,616.20

9. Pay-as-you-earn.—(a) *Salary and Wage Earners.* Salary and wage earners are subject to instalment deductions for payment of tax at current rates out of weekly (or fortnightly) earnings. Employers are required to deduct tax and contribution from each payment of wages or salary to an employee at the appropriate rate, in accordance with a prescribed instalment scale. This scale shows the amount to be deducted according to the income and number of dependants of the employee.

Under the group scheme of deduction, which covers most employers of more than ten persons, the amount deducted is remitted to the Taxation Department, and after 30th June each year each employee is given a group certificate by his employer showing the amount of deductions made during the year. This certificate is forwarded to the Taxation Department with the employee's return of income for the year. If the tax assessed on the basis of this return is less than the amount shown on the group certificate, a refund is forwarded to the employee with his assessment. If the tax assessed is greater than the amount shown on the group certificate, the employee is required to pay the balance.

Under the stamp scheme used by small employers, a stamp deduction sheet in two parts is used. Each four weeks, the employer purchases stamps (also in two parts) for the amount of the deductions made each pay day and sticks one part on each half of the sheet. At the end of the year, the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

(b) *Taxpayers with Income other than Salary and Wages.* These taxpayers pay provisional tax in respect of income other than salary and wages. Collection of tax and contribution for the current year is made at the same time as collection and assessment for the previous year is adjusted. The notice of assessment shows an amount of provisional tax and contribution for the current year. This provisional amount is an approximation to the tax and contribution which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged) but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax and contribution paid in the previous year as a credit against the tax and contribution assessed on the basis of the return for that year. On receipt of his assessment, the taxpayer may elect to substitute his own estimate of income for the current year and pay tax on the basis of this estimate. To protect the revenue, a penalty is imposed if the taxpayer elects to pay provisional tax on an estimate of income more than 20 per cent. lower than the income of the previous year and he underestimates his income by more than 20 per cent.

An employee with income of £100 or more from sources other than salaries or wages is required to pay provisional tax in respect of that income.

10. Lodgment of Returns and Assessment of Tax.—All persons with assessable income in excess of £104 are required to lodge returns by the 31st July each year (31st August for business incomes). The Income Tax and Social Services Contribution payable is assessed, and assessment notices showing the amounts payable are issued, during the year following the year of income (in most cases from September to June following the lodgment of the return). The approximate amount payable, however, has already been collected during the income year—from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

11. Company Income Taxes.—(i) *General.* For taxation purposes, companies are divided into two main groups—public and private. A private company is defined as a company in which all the issued shares are held by not more than twenty persons or which is capable of being controlled by not more than seven persons; and which is not a company in which the public is substantially interested or a subsidiary of a public company. All other companies are regarded as public companies. Both public and private companies pay primary Income Tax and Social Services Contribution assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income, but resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income. This rebate is not allowed to non-resident companies.

(ii) *Rates of Tax.* The rates of Primary Tax, in the case of public companies, and Primary and Additional Tax for private companies, for the financial years 1953-54 to 1959-60 are shown in the table below.

Super Tax and Undistributed Income Tax ceased to be levied on public companies in the 1951-52 financial year and Additional Income Tax and Social Services Contribution ceased in the 1953-54 financial year. For details, *see* Official Year Book No. 39, page 846 and No. 40, page 743.

RATES OF TAX: COMPANIES, 1953-54 TO 1959-60 FINANCIAL YEARS.
(Pence per £.)

Type of Company.	Rate of Income Tax and Social Services Contribution—						Rate of Additional Tax on Undistributed Income.
	1953-54 to 1955-56.		1956-57.		1957-58 to 1959-60.		1953-54 to 1959-60.
	Up to £5,000.	On Remainder of Taxable Income.	Up to £5,000.	On Remainder of Taxable Income.	Up to £5,000.	On Remainder of Taxable Income.	Undistributed Amount—Additional Tax.
Private	48	72	60	84	54	78	120
Co-operative	60	84	72	96	66	90	..
Non-Profit(a)—							
Friendly Society Dispensaries	60	84	72	96	66	66	..
Other(b)	60	84	72	96	66	90	..
Life Assurance—							
Mutual	48	72	60	84	54	78	..
Other—							
(1) Mutual Income ..	48	72	60	84	54	78	..
(2) Other Income(c) ..	(d) 72	84	(d) 84	96	(d) 78	90	..
Other	(d) 72	84	(d) 84	96	(d) 78	90	..
Interest paid to a Non-Resident(e)	84	84	96	96	90	90	..

(a) Incomes not exceeding £104 are exempt from tax. (b) Where the taxable income does not exceed £208 (1953-54 to 1955-56), £228 (1956-57) or £231 (1957-58 to 1959-60) the tax may not exceed one half (1953-54 to 1955-56, 1957-58 to 1959-60) or eleven-twentieths (1956-57) of the amount by which the taxable income exceeds £104. (c) The rate of 72d. (1953-54 to 1955-56), 84d. (1956-57) or 78d. (1957-58 to 1959-60) is levied on the amount by which the £5,000 exceeds the mutual income. (d) For non-resident companies dividends included in this part of the taxable income are taxed at 60d. (1953-54 to 1955-56), 72d. (1956-57) and 66d. per £1 (1957-58 to 1959-60). (A resident company is allowed a rebate of tax in respect of dividends received.) (e) If the non-resident is not a company, tax is paid only on income in excess of £104.

A private company incurs liability for additional tax on its undistributed income if it fails to make a sufficient distribution of income within a specified period after the close of the year of income. The tax is levied on the undistributed amount which, for practical purposes, is the taxable income less—

- (a) Primary income tax and social services contribution payable;
- (b) Retention allowance (i.e., the proportion of the reduced distributable income which a company may retain without incurring liability for undistributed income tax); and
- (c) Certain dividends paid by the company.

For the financial years 1953-54 to 1958-59, the retention allowance is the following proportion of the reduced distributable income:—

- On the first £1,000 or part, 50 per cent.
- On the next £1,000 or part, 40 per cent.
- On the next £1,000 or part, 35 per cent.
- On the next £1,000 or part, 30 per cent.
- On the balance, 25 per cent., and
- Ten per cent. of distributable income from property, except dividends from other private companies.

For 1959-60, the minimum retention allowance in relation to business profits has been increased to 35 per cent. The new rates are as follows:—

- On the first £1,000 or part, 50 per cent.
- On the next £1,000 or part, 40 per cent.
- On the balance, 35 per cent.

The retention allowance in respect of distributable income from property, except dividends from other private companies, is unchanged at 10 per cent.

For the financial years 1953-54 to 1959-60, the reduced distributable income is calculated by deducting from the taxable income the primary tax payable and the amount of all property income included in taxable income. The additional tax on undistributed income was imposed at a flat rate of 10s. in the £1 on the undistributed amount.

12. Yield of Income Taxes.—(i) *Collections from Income Taxes.* The following table shows the collections of taxes imposed on income for the years 1938-39 and 1954-55 to 1958-59:—

INCOME TAX COLLECTIONS.

(£'000.)

Year.	Total.		
	Commonwealth.(a)	State.(b)	Total.
1938-39	11,883	29,796	41,679
1954-55	532,916	52	532,968
1955-56	573,988	74	574,062
1956-57	620,298	23	620,321
1957-58	650,419	33	650,452
1958-59	608,660	15	608,675

(a) Includes Social Services Contribution, War Time (Company) Tax, Super Tax, Undistributed Profits Tax and Wool Deduction. (b) Amounts shown for years other than 1938-39 are arrears of State Income Taxes.

(ii) *Commonwealth Income Tax Assessed.* The amounts of Commonwealth Taxes assessed on the income of recent years are shown in the following table. The amounts are shown under the year in which most of the assessments were made, i.e., the year following the income year. Income taxes assessed on income for past years and for the years shown after the close of the normal assessing period, are not included.

COMMONWEALTH INCOME TAXES ASSESSED.

(£'000.)

Tax.	1939-40.	1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
Individuals—						
Income Tax and Social Services Contribution	(a) 7,423	b 378,874	320,174	316,027	346,355	390,596
Companies—						
Income Tax	8,041	119,348	158,887	174,997	210,664	212,707
Additional Tax on Undistributed Income of Private Companies ..	688	4,266	4,001	3,654	2,951	2,512
Total	16,152	502,488	483,062	494,678	559,970	605,815

(a) Income Tax.

(b) Includes assessments issued to 30th June, 1957.

(iii) *Commonwealth Income Tax and Social Services Contribution, 1957-58 Assessment Year.* The following tables show, for the 1957-58 assessment year, details of the number of taxpayers, income, and net income tax and social services contribution assessed for individuals and resident and non-resident companies.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION:
1957-58 ASSESSMENT(a)—NUMBER OF TAXPAYERS, ACTUAL INCOME,
TAXABLE INCOME AND NET INCOME TAX AND SOCIAL SERVICES CONTRI-
BUTION ASSESSED—INDIVIDUALS.**

(Incomes derived in the year 1956-57.)

Grade of Actual Income(b) and State or Territory of Assessment.	Number of Taxpayers.			Actual Income.	Taxable Income.			Net Income Tax and Social Services Contribution Assessed.
	Males.	Females.	Total	Total.	Salary and Wages.	Other Income.	Total.	
£	£	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
105-199 ..	52,678	101,306	153,674	23,726	19,011	3,752	22,763	192
200-299 ..	68,935	122,303	191,438	48,082	37,020	7,697	44,717	828
300-399 ..	94,755	137,971	232,726	81,685	62,274	12,076	74,350	2,323
400-499 ..	106,544	155,479	262,023	117,929	87,210	18,332	105,542	4,540
500-599 ..	120,216	190,841	311,057	171,031	128,086	23,293	151,379	8,233
600-699 ..	148,929	146,838	295,767	191,965	137,232	27,131	164,363	10,376
700-799 ..	244,176	88,464	332,640	250,299	173,195	30,453	203,648	14,207
800-899 ..	345,544	50,894	396,438	337,405	232,969	33,111	266,080	20,317
900-999 ..	353,761	29,796	383,557	363,938	246,070	34,044	280,114	23,162
1,000-1,099 ..	294,344	19,503	313,847	328,662	218,050	33,771	251,821	22,607
1,100-1,199 ..	217,143	12,931	230,074	263,937	170,273	32,266	202,539	19,673
1,200-1,299 ..	158,482	9,462	167,944	209,484	130,752	30,184	160,936	16,777
1,300-1,399 ..	117,641	7,351	124,992	168,212	100,867	28,707	129,574	14,401
1,400-1,499 ..	83,684	5,966	89,650	129,713	73,794	26,617	100,411	11,874
1,500-1,999 ..	194,295	17,697	211,992	359,944	173,537	110,520	284,057	38,724
2,000-2,999 ..	99,946	13,697	113,643	271,255	81,065	144,363	225,428	40,897
3,000-3,999 ..	32,976	5,229	38,205	130,947	26,729	86,709	113,438	26,869
4,000-4,999 ..	15,488	2,549	18,037	80,128	13,461	57,429	70,890	20,084
5,000-9,999 ..	19,365	3,407	22,772	150,667	21,827	114,526	136,353	50,833
10,000-14,999 ..	2,992	651	3,643	43,627	4,733	35,375	40,108	19,101
15,000 and over	1,623	332	1,955	45,370	3,551	37,861	41,412	23,097
Total Residents	2,773,207	1,122,867	3,896,074	3,768,006	2,141,706	928,217	3,069,923	389,115
Central Office ..	8,286	5,371	13,657	44,024	6,808	32,103	38,911	13,894
New South Wales	1,029,753	431,905	1,461,658	1,436,580	855,524	315,081	1,170,605	147,861
Victoria ..	783,690	345,623	1,129,313	1,084,447	631,528	260,440	891,968	109,397
Queensland ..	389,471	133,787	523,258	484,379	249,532	137,500	387,032	50,770
South Australia	261,097	100,286	361,383	344,488	185,305	97,210	282,515	33,675
Western Australia	191,677	67,012	258,689	234,013	129,845	57,052	186,897	20,837
Tasmania ..	91,519	32,435	123,954	113,781	65,812	25,393	91,205	9,996
Nor. Territory ..	5,290	1,478	6,768	7,805	4,766	1,049	5,815	727
Aust. Cap. Ter.	12,424	4,970	17,394	18,489	12,586	2,389	14,975	1,958
Total Residents	2,773,207	1,122,867	3,896,074	3,768,006	2,141,706	928,217	3,069,923	389,115
Total Non-Residents	2,556	2,464	5,020	6,890	737	5,704	6,441	1,481
Grand Total	2,775,763	1,125,331	3,901,094	3,774,896	2,142,443	933,921	3,076,364	390,596

(a) Assessments in respect of 1956-57 incomes issued to 30th September, 1958. Assessments issued after that date are not included. (b) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income".

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION,
1957-58 ASSESSMENT(a)—NUMBER OF TAXPAYERS, ACTUAL INCOME,
TAXABLE INCOME AND NET TAX ASSESSED—RESIDENT AND NON-
RESIDENT COMPANIES.**

(Incomes derived in 1956-57.)

Grade of Taxable Income(b) and State or Territory of Assessment.				Number of Taxpayers.	Actual Income.	Taxable Income.	Net Tax Assessed.(c)
£	£			No.	£'000.	£'000.	£'000.
1- 999	..	..	..	11,437	5,307	3,947	889
1,000- 4,999	..	..	..	12,662	36,848	33,564	7,413
5,000- 9,999	..	..	..	5,465	40,337	37,957	9,309
10,000- 19,999	..	..	..	3,266	47,598	45,534	12,551
20,000- 49,999	..	..	..	2,401	77,160	74,667	22,038
50,000- 99,999	..	..	..	975	70,401	68,178	20,774
100,000-199,999	..	..	..	565	81,007	78,718	24,709
200,000-499,999	..	..	..	323	98,616	96,003	28,914
500,000-999,999	..	..	..	79	57,554	55,290	18,571
1,000,000 and over	..	..	..	78	237,431	208,626	67,539
<i>Total</i>				<i>37,251</i>	<i>752,259</i>	<i>702,484</i>	<i>212,707</i>
Central Office	..	..	..	3,124	381,141	343,415	110,082
New South Wales	..	..	..	15,345	155,868	151,598	42,940
Victoria	..	..	..	10,338	110,958	108,116	29,962
Queensland	..	..	..	2,488	35,719	34,321	10,945
South Australia	..	..	..	3,484	36,071	35,069	9,557
Western Australia	..	..	..	1,425	21,195	18,959	5,989
Tasmania	..	..	..	756	9,111	8,941	2,803
Northern Territory	..	..	..	58	445	442	118
Australian Capital Territory	..	..	..	233	1,751	1,623	311
<i>Total</i>				<i>37,251</i>	<i>752,259</i>	<i>702,484</i>	<i>212,707</i>

(a) Assessments in respect of 1956-57 incomes issued to 31st December, 1958. Assessments issued after that date are not included. (b) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (c) Excludes additional tax levied on the undistributed income of Private Companies £2,512,000.

(iv) *Commonwealth Income Tax on Residents—Grades of Income.* Individual income taxes assessed on residents are distributed according to grades of actual income in the following table. The year shown in each case refers to the year in which assessment was made, i.e., the year following the income year. The figures relate only to assessments made on the income of the previous year during the normal assessing period. Assessments issued after the normal assessing period are not included.

**COMMONWEALTH INCOME TAXES AND SOCIAL SERVICE CONTRIBUTIONS
ON RESIDENT INDIVIDUALS IN GRADES OF ACTUAL INCOME.(a)**

Grade of Actual Income.(b)		1954-55.		1955-56.		1956-57.		1957-58.	
		No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.
£	£		£'000.		£'000.		£'000.		£'000.
105- 199 ..		166,549	258	164,808	214	162,809	208	153,674	192
200- 299 ..		220,238	1,181	216,963	965	206,419	911	191,438	828
300- 399 ..		247,650	2,903	248,479	2,521	244,801	2,477	232,726	2,323
400- 499 ..		281,456	5,614	280,227	4,984	273,853	4,822	262,023	4,540
500- 599 ..		329,867	9,645	322,109	8,521	318,290	8,436	311,057	8,233
600- 699 ..		339,308	12,540	314,943	10,737	303,339	10,570	295,767	10,376
700- 799 ..		472,930	21,129	406,000	16,723	357,134	15,109	332,640	14,207
800- 899 ..		428,201	23,229	417,227	21,140	395,107	20,164	396,438	20,317
900- 999 ..		308,464	20,564	343,406	21,132	363,075	22,513	383,557	23,162
1,000- 1,099 ..	} c			257,924	18,807	290,610	21,376	313,847	22,607
1,100- 1,199 ..		382,728	33,422	174,712	15,032	209,609	18,273	230,074	19,673
1,200- 1,299 ..				118,569	12,084	151,068	15,327	167,944	16,777
1,300- 1,399 ..		134,385	17,922	79,891	9,478	108,192	12,807	124,992	14,401
1,400- 1,499 ..				56,835	7,787	76,105	10,365	89,650	11,874
1,500- 1,999 ..		101,130	21,930	134,831	26,067	181,225	34,332	211,992	38,724
2,000- 2,999 ..		70,043	30,330	79,743	30,953	95,565	35,939	113,643	40,897
3,000- 3,999 ..		27,762	22,690	28,800	21,499	31,869	23,466	38,205	26,869
4,000- 4,999 ..		13,155	16,681	13,592	15,799	14,879	17,166	18,037	20,084
5,000- 9,999 ..		16,995	42,617	17,428	39,381	18,238	41,359	22,772	50,833
10,000-14,999 ..		2,795	16,212	2,592	13,441	2,586	13,491	3,643	19,101
15,000-29,999 ..		1,286	13,716	1,246	11,857	1,156	10,972	1,668	16,008
30,000-49,999 ..		185	3,993	157	2,877	145	2,765	215	4,227
50,000 and over		57	2,532	68	2,735	56	2,379	72	2,862
Total ..		3,545,184	319,108	3,680,550	314,734	3,806,130	345,227	3,896,074	389,115

(a) Actual income is defined briefly as "Gross Income including exempt income less expenses incurred in gaining that income". (b) For the years prior to 1956-57 the grades of actual income were £105-200, 201-300, 301-400, etc. (c) Grades for year 1954-55 were £1,001-£1,250 and £1,251-£1,500.

CHAPTER XXII.

AGRICULTURAL PRODUCTION.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as £A. f.o.b. port of shipment, except where otherwise indicated.

§ 1. Introductory.

In general, statistics in this chapter relating to agricultural production are derived from "census" returns supplied by approximately 250,000 farmers who utilize one acre or more of land for agricultural or pastoral purposes and the latest figures available are those for the year 1958–59. The returns are collected on a substantially uniform basis in all States at 31st March, each year, and relate to areas sown and crops produced in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources, these are used in conjunction with the "census" returns. The statistics published in this chapter are therefore shown in "agricultural" years. For most purposes, there will be little error involved in considering them as applying to years ending on 30th June.

§ 2. Progress of Agriculture.

1. *Early Records.*—In an "*Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797*", Governor Hunter gives the acreage of crops as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

The following details of crops were collected in 1808:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (*See No. 22, p. 670.*)

By the year 1850, the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850, the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area of crops declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres.

2. *Progress of Cultivation.*—The following table shows the area of crops in each of the States and Territories of Australia at decennial intervals since 1860–61 and during each of the eleven seasons 1948–49 to 1958–59. On page 889 there is a graph showing the area of crops in Australia from 1900–01 onward.

AREA OF CROPS.

('000 Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1860-61	246	387	4	359	25	153	..	..	1,174
1870-71	385	693	52	802	55	157	..	..	2,144
1880-81	606	1,549	114	2,087	64	141	..	..	4,561
1890-91	853	2,032	225	2,093	70	157	..	..	5,430
1900-01	2,447	3,114	458	2,370	201	224	..	..	8,814
1910-11	3,386	3,952	667	2,747	855	287	..	..	11,894
1920-21	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930-31	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940-41	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1948-49	5,711	4,645	1,953	3,757	4,215	345	(a)	10	20,636
1949-50	5,670	4,480	2,057	3,617	4,399	368	(a)	10	20,601
1950-51	4,761	4,351	2,077	3,676	4,650	290	(a)	6	19,811
1951-52	4,704	4,271	2,022	3,696	4,693	291	(a)	6	19,683
1952-53	4,837	4,286	2,422	3,581	4,816	303	(a)	6	20,251
1953-54	5,425	4,480	2,361	3,778	4,633	330	(a)	6	21,013
1954-55	5,394	4,394	2,593	3,895	5,112	301	1	5	21,695
1955-56	5,660	4,542	2,604	3,972	5,342	326	1	7	22,454
1956-57	3,789	3,637	2,469	3,979	5,232	288	1	5	19,400
1957-58	5,000	4,051	2,600	3,907	5,615	292	1	5	21,471
1958-59	6,820	4,791	2,852	4,147	6,135	339	1	8	25,093

(a) Not available.

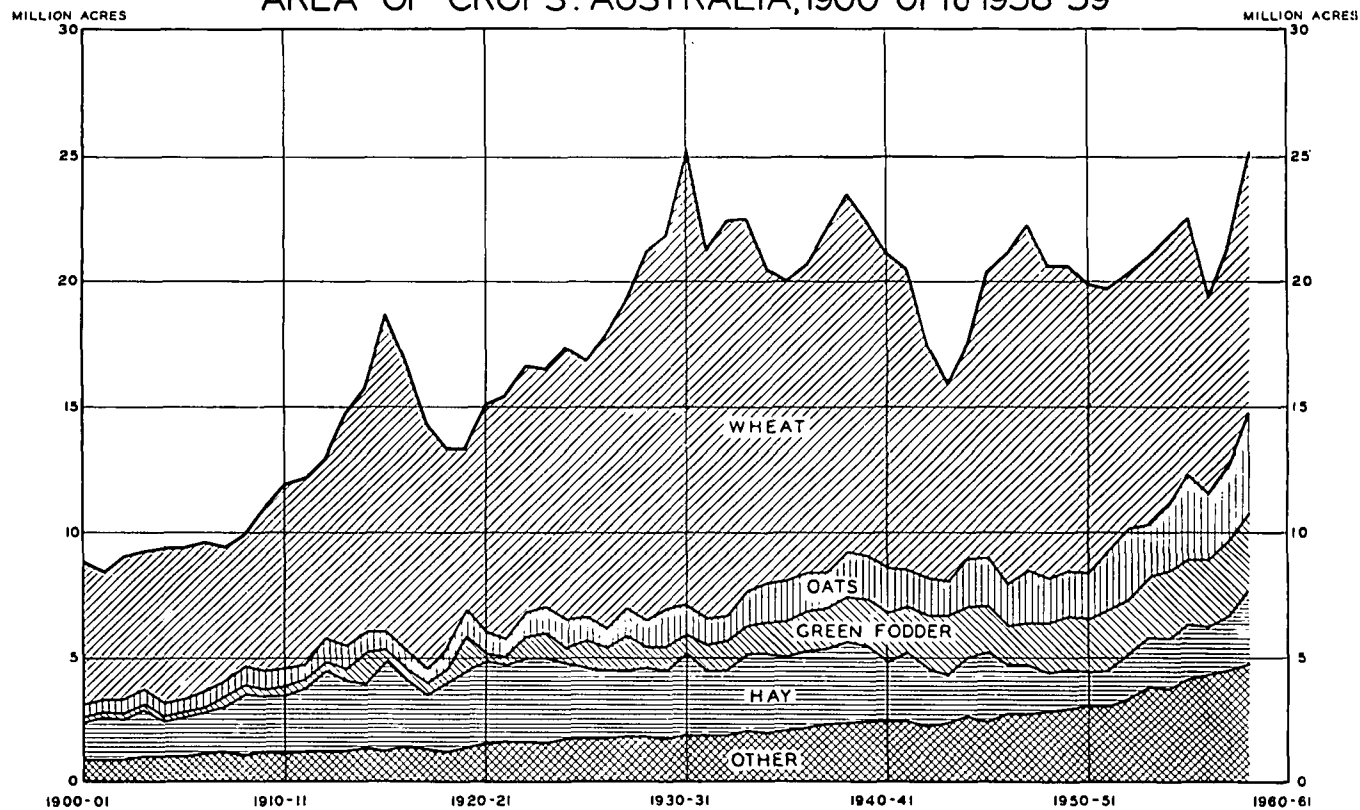
The progress of agriculture was practically uninterrupted from 1860-61 to 1915-16, when, as the result of a special effort to raise wheat during the 1914-18 War, 18.5 million acres were cultivated in Australia. There was a temporary set back in later war years but after the termination of hostilities the area continued to expand and rose steadily to the record area of 25.2 million acres in 1930-31. Thereafter, the slump in wheat prices seriously depressed the agricultural industry and the area of crops receded to just under 20 million acres in 1935-36.

By 1938-39, the industry had recovered from the depression and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time man-power shortages and shipping difficulties, the area declined to less than 16 million acres in 1943-44. After 1943-44, production gradually increased again until, in 1947-48, 22.3 million acres were sown to crops. This upward trend was reversed after 1948-49, largely because, as a result of the high prices of wool, many primary producers transferred from agricultural to pastoral production. In recent years, the area sown increased from 19.7 million acres in 1951-52 to 22.5 million acres in 1955-56, but in 1956-57, due largely to excessively wet conditions in the eastern States the area sown dropped to 19.4 million acres. By 1958-59, the area had increased again to 25.1 million acres, an acreage exceeded only once previously, in 1930-31. As the area under wheat in Australia constitutes a large proportion of the total area cropped (49 per cent. during the ten years ended 1958-59), fluctuations in the latter follow broadly the same pattern as changes in wheat areas.

3. **Area under Sown Pastures.**—In all the States, there are considerable areas of grasses, mainly sown on land from which scrub has been cleared or on land which it is desired to rest from cultivation. These areas, which are not included in "area of crops", have expanded from about 5.3 million acres in 1929-30 to about 34.1 million acres in 1958-59.

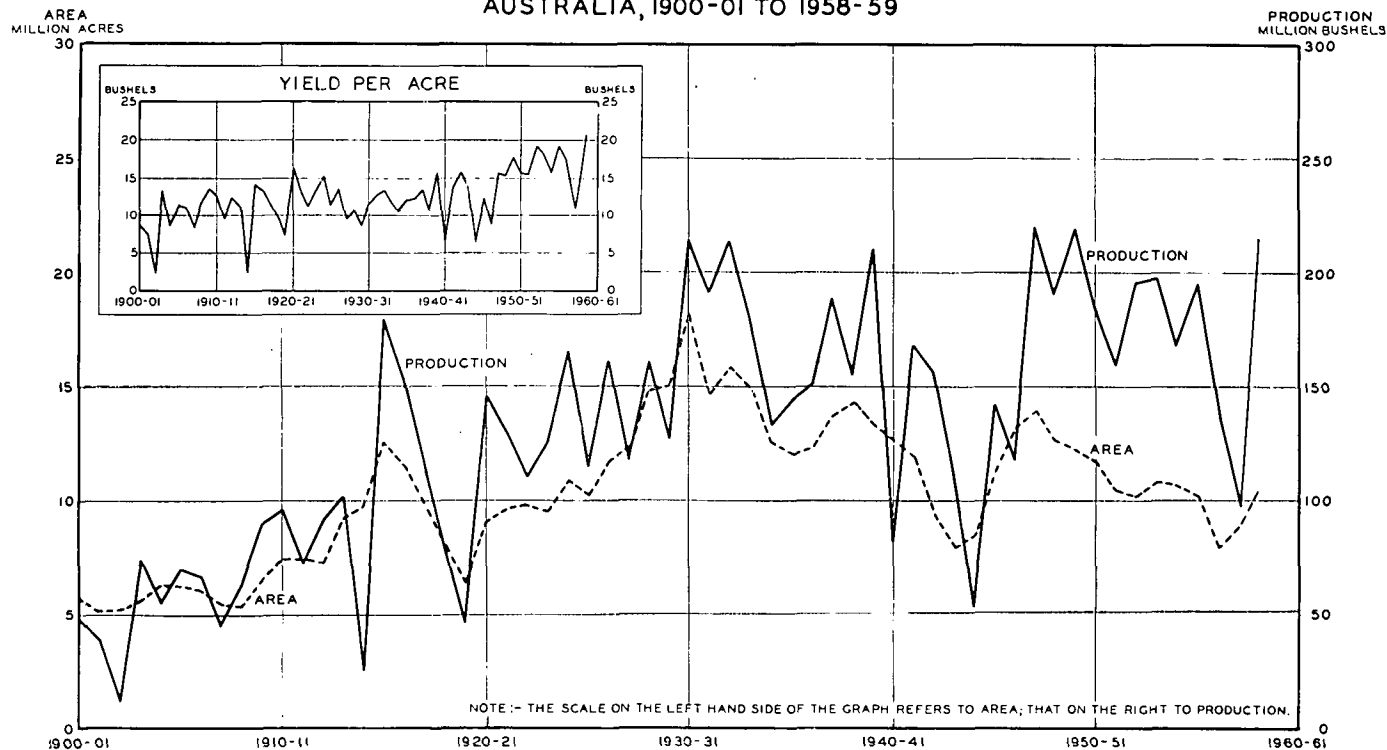
4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Ministers for Primary Industry and for Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are:—(i) the promotion of the welfare and development of agricultural industries generally; (ii) exchange of information on agricultural production and marketing; (iii) the improvement

AREA OF CROPS: AUSTRALIA, 1900-01 to 1958-59

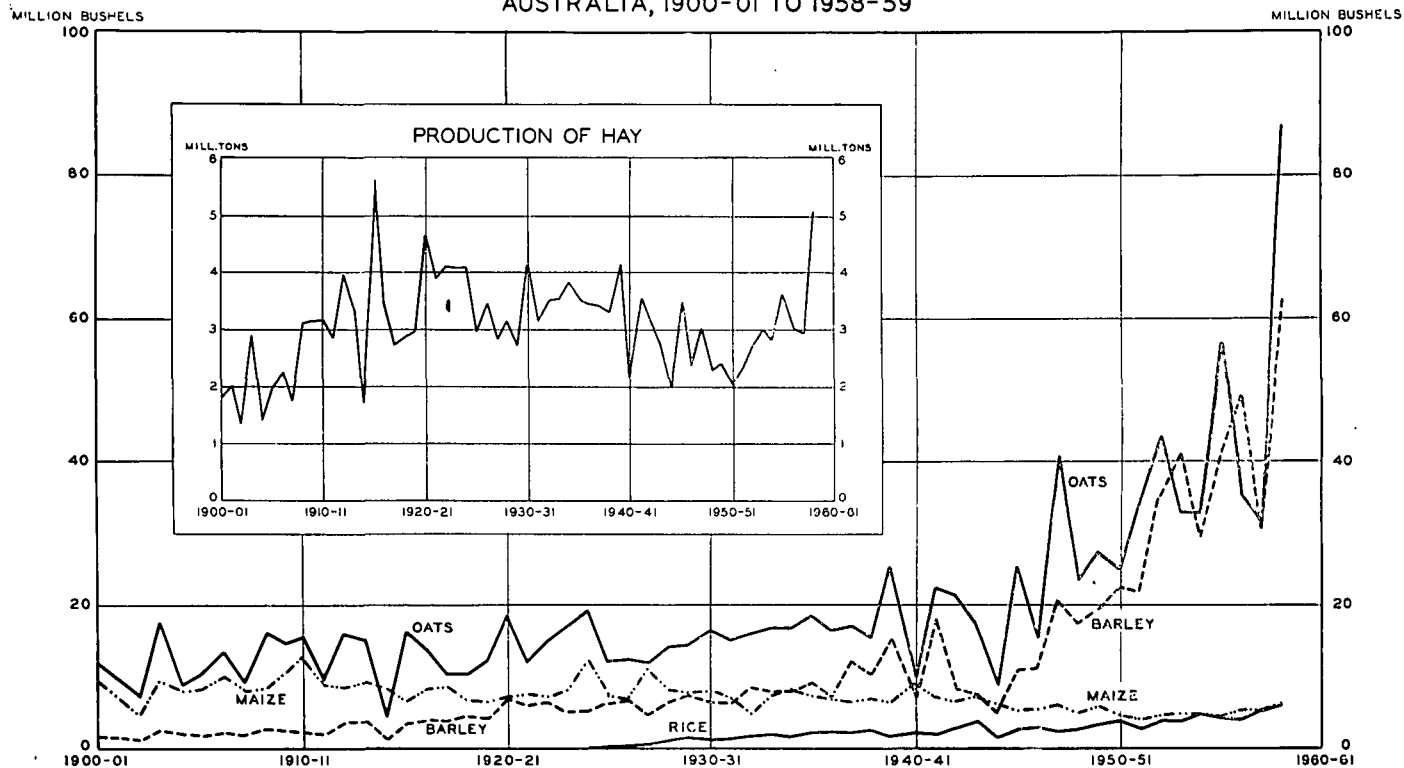


WHEAT (GRAIN): AREA, PRODUCTION AND YIELD PER ACRE

AUSTRALIA, 1900-01 TO 1958-59



PRODUCTION OF OATS, BARLEY, MAIZE, RICE AND HAY AUSTRALIA, 1900-01 TO 1958-59



of the quality of agricultural products and the maintenance of high grade standards; (iv) to ensure, as far as possible, balance between production and available markets; and (v) organized marketing, etc.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

§ 3. Distribution, Production and Value of Crops.

1. Area of Crops in States and Territories.—The following table shows the areas in the several States, the Northern Territory and the Australian Capital Territory of each of the crops for the season 1958–59.

AREA OF CROPS, 1958-59. (Acres.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—									
Barley—									
2 Row ..	73,407	343,484	223,794	1,265,172	50,412	8,665	..	..	1,964,934
6 Row ..	32,432	19,387	24,723	67,301	271,081	668	..	..	415,592
Maize ..	62,249	3,881	113,402	(a)	10	..	..	..	(b) 179,542
Oats ..	1,130,296	970,688	39,133	481,076	1,329,742	22,199	..	1,051	3,974,185
Panicum, Millet and									
Setaria ..	211	1,545	81,245	(a)	..	..	10	..	(b) 83,011
Rice ..	47,054	..	..	(a)	..	..	(a)	..	(b) 47,054
Rye ..	4,047	27,458	658	57,152	10,577	153	..	..	100,045
Sorghum ..	41,899	..	210,371	..	..	..	149	..	252,419
Wheat ..	3,178,013	1,810,026	704,005	1,407,413	3,291,858	6,438	..	1,415	10,399,168
Hay ..	746,865	1,282,140	77,822	419,566	332,613	153,822	121	5,128	3,018,077
Green Fodder ..	1,238,314	(c) 70,289	638,667	(d) 261,813	769,199	61,322	273	667	3,040,544
Other Stock Fodder ..	9,420	28,116	11,653	36,575	3,497	26,643	22	..	115,926
Grass Seed—									
Lucerne ..	23,729	..	632	26,596	(a)	..	..	..	(b) 50,957
Clover ..	10,660	5,640	..	5,702	14,513	1,569	..	..	38,084
Other ..	8,036	12,880	12,928	5,957	9,390	2,516	..	..	51,707
Industrial Crops—									
Broom Millet ..	1,800	261	322	..	(a)	..	..	..	(b) 2,383
Canary Seed ..	410	..	9,067	54	..	..	..	..	9,531
Cotton ..	..	..	10,493	..	(a)	..	..	..	(b) 10,493
Flax—									
For Fibre ..	..	..	..	..	2,015	..	..	..	2,015
For Linseed ..	4,622	8,817	22,839	703	244	..	..	..	37,225
Hops ..	..	440	..	..	(a)	1,443	..	..	(b) 1,883
Peanuts ..	867	..	59,279	(a)	..	..	211	..	(b) 60,357
Sugar Cane—									
For Crushing ..	13,368	..	356,210	..	(a)	..	..	..	(b) 369,578
Other (excluding									
fodder) ..	10,343	..	130,591	..	..	..	..	..	140,934
Sunflower Seed ..	(a)	216	7,294	..	..	..	..	..	(b) 7,510
Tobacco ..	1,543	4,248	7,916	..	1,444	..	..	..	15,151
Other ..	(a)	727	261	(a)	..	274	..	..	(b) 1,262
Vegetables for Human									
Consumption—									
Onions ..	444	3,971	3,412	602	397	21	..	13	8,860
Potatoes ..	17,482	46,122	11,614	6,168	7,051	16,186	..	90	104,713
Other Vegetables ..	49,958	35,702	36,075	10,953	7,208	12,742	138	88	152,864
Vineyards—									
Bearing ..	16,186	42,482	2,721	54,337	8,128	..	2	..	123,856
Not Bearing ..	1,066	2,319	320	2,412	753	..	..	..	6,870
Orchards and other									
Fruit Gardens—									
Bearing ..	71,783	46,673	30,081	26,135	18,522	21,016	59	84	214,353
Not Bearing ..	20,997	20,073	13,830	11,102	4,381	2,152	27	5	72,567
Nurseries and Cut									
Flowers ..	923	2,538	319	204	283	227	..	11	4,505
All other Crops ..	1,340	866	10,427	555	1,354	749	..	22	15,313
Total Area ..	6,819,764	4,790,989	2,852,104	4,147,548	6,134,672	338,805	1,012	8,574	25,093,468

(a) Not available for publication. Included in "All other Crops", except in respect of rice in the Northern Territory which is excluded from "Total Area". (b) Incomplete. See footnotes to individual States. (c) Excludes lucerne and oats for grazing. (d) Excludes lucerne for grazing.

2. **Relative Areas of Crops in States and Territories.**—The proportion of each of the major crops cultivated in the various States and Territories to the total area of crops for the season 1958–59 is shown in the next table. In three of the States, namely New South Wales, Victoria and Western Australia, wheat-growing for grain is by far the most extensive crop. In Queensland and South Australia it is also the main crop but in the former State it is closely followed by green fodder and in the latter State by barley for grain. In Tasmania, hay and green fodder crops predominate.

As pointed out previously, wheat is the main crop in Australia, the area thereof, for grain only, representing 41 per cent. of the total area of crops in 1958–59.

RELATIVE AREAS OF CROPS, 1958-59.
(Per cent.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (Grain) ..	46.6	37.8	24.7	33.9	53.7	1.9	..	16.5	41.5
Green Fodder ..	18.2	<i>a</i> 1.5	22.4	<i>b</i> 6.3	12.5	18.1	27.0	7.8	12.1
Oats (Grain) ..	16.6	20.2	1.4	11.6	21.7	6.5	..	12.2	15.8
Barley (Grain) ..	1.6	7.6	8.7	32.1	5.2	2.8	..	..	9.5
Hay ..	10.9	26.7	2.7	10.1	5.4	45.4	12.0	59.8	12.0
Sugar-cane, Crushed ..	0.2	..	12.5	..	..	..	..	..	1.5
Total Orchards and Fruit									
Gardens ..	1.4	1.4	1.5	0.9	0.4	6.8	8.5	1.0	1.2
Sorghum ..	0.6	..	7.4	..	..	..	14.7	..	1.0
Maize (Grain) ..	0.9	0.1	4.0	(<i>c</i>)	..	..	..	..	0.7
Total Vineyards ..	0.2	0.9	0.1	1.4	0.1	..	0.2	..	0.5
Potatoes ..	0.3	1.0	0.4	0.2	0.1	4.8	..	1.0	0.4
All other ..	2.5	2.8	14.2	3.5	0.9	13.7	37.6	1.7	3.8
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(*a*) Excludes lucerne and oats for grazing. (*b*) Excludes oats for grazing. (*c*) Not available for publication. Included in "All other".

3. **Area of Principal Crops in Australia.**—The area of the principal crops during each of the five seasons ended 1958–59 is shown hereunder:—

AREA OF PRINCIPAL CROPS: AUSTRALIA.
(’000 Acres.)

Crop.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—					
Barley, 2 Row ..	1,391	1,510	1,705	1,758	1,965
Maize ..	170	168	182	184	180
Oats ..	2,574	3,354	2,556	2,959	3,974
Rice ..	39	41	50	47	47
Wheat ..	10,673	10,166	7,874	8,848	10,399
Hay ..	1,984	2,241	1,861	2,237	3,018
Green Fodder ..	2,733	2,649	2,685	3,039	3,041
Vegetables for Human Consumption—					
Onions ..	8	7	9	11	9
Potatoes ..	107	94	101	118	105
Other vegetables for human consumption ..	136	155	172	164	153
Industrial crops—					
Cotton ..	8	13	11	10	10
Hops ..	2	2	2	2	2
Sugar-cane ..	502	499	499	506	511
Tobacco ..	10	11	12	13	15
Vineyards ..	136	135	132	131	131
Orchards ..	276	279	270	276	287
All other Crops ..	946	1,130	1,280	1,168	1,246
Total ..	21,695	22,454	19,401	21,471	25,093

4. **Size Classification of Principal Crops.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955–56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955–56*. Condensed tables also appear in the bulletin *Primary Industries—Part I.—Rural Industries, No. 51*. The tables show a classification by size (area) of holding and size (area) of crop for wheat, oats, barley, sugar-cane, tobacco, potatoes, other vegetables for human consumption, vineyards, and orchard and non-orchard fruit.

5. **Weights and Measures.**—Details of the weights and measures used in recording production of agricultural commodities appear in the introduction to the bulletin *Primary Industries—Part I.—Rural Industries*.

6. **Production of Crops in States and Territories.**—The following table shows production of crops in the various States and Territories for the season 1958–59.

PRODUCTION OF CROPS, 1958-59.

Crop.	Unit of Quantity.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—										
Barley—										
2 Row	'000 bus.	2,019	8,174	7,372	35,974	809	276	..	..	54,624
6 Row	" "	903	407	732	1,690	4,601	19	..	..	8,352
Maize	" "	2,860	203	3,654	(a)	..	..	..	..	(b) 6,717
Oats	" "	27,638	23,339	832	11,992	22,585	491	..	..	86,905
Panicum, Millet and Setaria	" "	3	26	1,617	..	..	..	..	..	1,646
Rice	" "	6,619	..	..	..	(a)	..	(a)	..	(b) 6,619
Rye	" "	59	226	12	446	74	3	..	..	820
Sorghum	" "	943	..	6,366	..	..	..	..	..	7,310
Wheat	" "	66,441	42,697	16,097	32,032	57,650	164	1	..	215,121
Hay	" tons	1,183	2,299	169	672	455	302	..	10	5,090
Grass Seed—										
Lucerne	cwt.	14,874	..	261	21,787	(a)	..	..	..	36,922
Clover	" "	23,085	8,006	..	10,626	31,671	1,642	..	..	75,030
Other	" "	4,475	17,874	23,920	7,270	27,082	6,158	..	..	86,779
Industrial Crops—										
Broom Millet—										
Fibre	" "	11,477	1,327	1,349	..	(a)	..	..	..	(b) 14,153
Grain	bus.	9,996	1,559	(c)	..	..	..	..	..	(b) 11,555
Canary Seed	'000 bus.	5	..	90	..	..	..	..	..	95
Cotton, Unginned	'000 lb.	..	..	4,004	..	(a)	..	..	..	(b) 4,004
Flax—										
Straw	ton	..	..	..	..	3,665	..	..	..	3,665
Linseed	" "	1,196	2,769	6,510	151	42	..	..	..	10,668
Hops (Dry Weight)	cwt.	..	6,281	..	..	(a)	30,218	..	..	(b) 36,499
Peanuts	" "	11,623	..	621,687	(a)	..	..	2,412	..	(b) 635,722
Sugar-cane for Crushing	'000 tons	472	..	9,741	..	(a)	..	..	..	(b) 10,213
Sunflower Seed	cwt.	(a)	1,557	43,006	..	..	..	..	..	44,563
Tobacco, Dried Leaf	'000 lb.	1,158	4,885	6,729	..	1,198	..	..	..	13,970
Vegetables for Human Consumption—										
Onions	ton	2,476	28,456	13,584	5,318	5,043	97	..	106	55,080
Potatoes	" "	84,450	259,346	46,999	50,587	47,103	85,900	..	152	574,537
Vineyards—										
Grapes—										
For Drying	" "	47,080	232,962	..	58,989	4,596	..	..	..	343,627
Table	" "	5,007	6,689	..	3,004	784	..	1	..	17,626
Wine	" "	24,159	12,403	347	134,578	4,117	..	..	..	175,604

(a) Not available for publication.

(b) Incomplete; see footnotes to individual States.

(c) Not available.

7. **Production of Principal Crops in Australia.**—The following table shows the production of the principal crops for the five years ended 1958–59.

PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—						
Barley, 2 Row	'000 bus.	25,622	35,469	43,870	26,404	54,624
Maize	" "	5,076	4,755	5,494	5,639	6,717
Oats	" "	32,834	56,487	35,396	31,426	86,905
Rice	" "	5,080	(a) 4,725	(a) 4,262	(a) 5,658	(a) 6,619
Wheat	" "	168,617	195,443	134,455	97,566	215,121
Hay	" tons	2,856	3,625	3,043	2,969	5,090
Vegetables for Human Consumption—						
Onions	" "	49	40	54	72	55
Potatoes	" "	468	402	519	575	575
Industrial Crops—						
Cotton, Unginned	" lb.	3,597	5,359	3,809	3,390	4,004
Hops (dry weight) (b) ..	" cwt.	34,075	34,374	25,230	32,710	36,499
Sugar-cane for Crushing ..	'000 tons.	10,087	8,901	9,272	9,249	10,213
Tobacco (Dried leaf) ..	" lb.	6,822	6,106	8,709	11,567	13,970
Vineyards—						
Grapes	" tons	460	378	495	550	537
Wine made(c)	" gals.	23,964	22,895	30,743	33,854	32,538
Dried Vine Fruits	" tons	81	59	80	91	87

(a) Incomplete, excludes Northern Territory. (b) Excludes Western Australia. (c) Net factory and farm production of beverage and distillation wine excluding the liquid gallonage of spirits added in wine fortifying.

8. Yield per Acre of Principal Crops in Australia.—The following table shows for Australia the yield per acre of the principal crops for the five years ended 1958-59.

YIELD PER ACRE OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—						
Barley, 2 Row	bushel	18.4	23.5	25.7	15.0	27.8
Maize	"	29.9	28.4	30.3	30.6	37.4
Oats	"	12.8	16.8	13.8	10.6	21.9
Rice	"	131.3	114.7	84.4	121.0	140.7
Wheat	"	15.8	19.2	17.1	11.0	20.7
Hay	ton	1.44	1.62	1.63	1.33	1.69
Vegetables for Human Consumption—						
Onions	"	6.13	5.69	5.78	6.36	6.22
Potatoes	"	4.36	4.29	5.14	4.88	5.49
Industrial Crops—						
Cotton, Unginned	lb.	429	403	336	327	382
Hops (dry weight)(a) ..	cwt.	19.87	20.22	13.97	17.73	19.52
Sugar-cane for Crushing (a) ..	ton	26.95	23.88	25.05	24.62	27.63
Tobacco (Dried leaf) ..	lb.	706	540	716	876	922
Vineyards—						
Grapes (a)	ton	3.61	2.97	3.98	4.42	4.33

(a) Per acre of productive crops.

9. Gross Value of Principal Crops in Australia.—The following table shows the gross value of principal crops at the principal markets in Australia for the five years ended 1958-59.

GROSS VALUE(a) OF PRINCIPAL CROPS : AUSTRALIA.

(£'000.)

Crop.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
Cereals for Grain—					
Barley	18,257	20,994	24,896	17,555	33,304
Maize	3,615	3,464	3,732	4,995	4,629
Oats	14,066	19,373	12,239	15,951	30,964
Rice	3,430	(b) 3,406	(b) 3,069	(b) 4,045	(b) 4,731
Wheat	107,528	126,091	92,647	66,892	144,087
Hay	30,878	34,807	30,524	39,277	46,503
Green Fodder (c)	6,436	5,950	5,897	8,571	6,966
Vegetables for Human Consumption—					
Onions	1,586	1,973	2,516	1,274	1,920
Potatoes	13,449	25,895	17,955	9,969	13,109
Other vegetables for human consumption	23,385	27,993	30,190	25,359	25,239
Industrial Crops					
Cotton, Unginned	208	307	224	213	249
Hops (c)	1,106	1,102	857	1,137	1,273
Sugar-cane	39,706	35,786	40,718	47,346	47,276
Tobacco (Dried leaf)	3,823	3,200	4,503	6,202	7,920
Grapes	12,293	10,511	15,406	18,337	18,496
Fruit and Nuts	46,568	48,349	49,898	59,150	54,025
All other Crops	13,301	15,736	16,877	14,573	19,166
Total Gross Value	339,635	384,937	352,148	340,846	459,857

(a) Includes amounts paid as bounty, relief, etc.

(b) Incomplete, excludes Northern Territory.

(c) Incomplete, excludes Western Australia.

10. Value of Production and Indexes of Price and Quantum of Production.—(i) *Gross and Net Values*, 1958-59. Values of agricultural production for each State are shown for 1958-59 in the following table. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant; consequently, the figures are overstated to that extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1958-59.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Value of Materials Used in Process of Production.		Net value of Production. (a)
				Seed used and Fodder for Farm Stock.	Value of other Materials used.	
New South Wales	114,599	24,795	89,804	3,824	(b) 3,508	82,472
Victoria	101,058	15,607	85,451	5,349	6,441	73,661
Queensland	95,655	11,577	84,078	3,246	12,116	68,716
South Australia	70,429	9,965	60,464	3,193	6,700	50,571
Western Australia	63,336	8,503	54,833	3,283	8,804	42,746
Tasmania	14,516	2,119	12,397	604	1,297	10,496
Northern Territory	59	..	59	..	..	59
Australian Capital Territory	245	9	236	2	7	227
Australia	459,897	72,575	387,322	19,501	38,873	328,948

(a) No deduction has been made for depreciation and maintenance.

(b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

(ii) *Net Values, 1954-55 to 1958-59.* In the following table, the net value of agricultural production and the net value per head of population are shown by States for the years 1954-55 to 1958-59.

NET VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE.(a) (£'000.)									
1954-55	48,711	61,516	59,656	39,180	23,483	11,240	45	88	243,919
1955-56	63,647	66,465	55,361	41,271	37,350	15,170	42	149	279,455
1956-57	48,425	63,802	60,127	49,688	24,640	7,978	58	143	254,861
1957-58	44,754	64,971	62,898	32,318	27,338	12,050	52	149	244,530
1958-59	82,472	73,661	68,716	50,571	42,746	10,496	59	227	328,948

NET VALUE PER HEAD OF POPULATION. (£ s. d.)

1954-55	14	1	7	24	14	6	45	0	3	48	10	5	36	3	9	35	18	3	2	14	6	2	16	4	26	16	8
1955-56	18	1	2	25	18	3	40	18	7	49	9	2	55	16	6	47	10	6	2	8	1	4	8	7	29	19	11
1956-57	13	9	11	24	3	4	43	11	1	57	13	8	35	19	11	24	9	3	3	3	3	3	19	5	26	14	7
1957-58	12	4	8	24	0	0	44	16	5	36	9	7	39	2	8	36	1	4	2	14	8	3	15	10	25	1	10
1958-59	22	2	9	26	10	9	48	3	9	55	13	6	60	0	4	30	15	1	3	0	0	5	4	6	33	1	0

(a) No deduction has been made for depreciation and maintenance.

(iii) *Indexes of Quantum and Price of Agricultural Production.* Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized at the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. Further details on weights used, etc., are to be found in Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM(a) AND PRICE OF AGRICULTURAL PRODUCTION (Base : Average 3 years ended June, 1939 = 100.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
Quantum Produced—					
Wheat	102	119	82	59	131
Other Crops	131	144	144	141	187
<i>Total, All Crops</i>	<i>120</i>	<i>134</i>	<i>120</i>	<i>109</i>	<i>165</i>
Total per Head of Population	91	99	86	77	114
Price—					
Wheat	319	319	347	339	337
Other Crops	314	339	327	333	310
<i>Total, All Crops</i>	<i>316</i>	<i>330</i>	<i>336</i>	<i>336</i>	<i>322</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936-37 to 1938-39).

§ 4. Wheat.

1. *Royal Commission on the Wheat Industry.*—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third that of baking, the fourth the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

2. **Licensing of Areas Sown to Wheat, and Acreages Sown.**—Details of the operations of the Wheat Stabilization Board in licensing wheat growing during the seasons 1941–42 to 1948–49 will be found in Official Year Book No. 38, pages 940–41. The Board ceased to function on 31st December, 1948.

3. **Legislation relating to Wheat Industry.**—(i) *Stabilized Marketing.* A detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Official Year Book No. 37, pages 1295–99.

(ii) *The Australian Wheat Board.* The Australian Wheat Board was constituted in September, 1939, under National Security (Wheat Acquisition) Regulations to purchase, sell, or dispose of, wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations.

The Board was reconstituted for five years, with similar powers, under the Commonwealth Wheat Stabilization Act 1948, to administer the stabilization plan. The new Board commenced to function on 18th December, 1948. The Board has been continued in existence by the Commonwealth Wheat Industry Stabilization Acts of 1954 and 1958 for the purpose of administering the second and third five-year stabilization plans.

(iii) *Wheat Stabilization Plans (a) 1947–48 to 1952–53.* Details of the Wheat Stabilization Plan which operated during the seasons 1947–48 to 1952–53 inclusive were published in Official Year Book No. 40, pages 841 and 842, and previous issues.

(b) *1953–54 to 1957–58.* Details of the plan which operated during the seasons 1953–54 to 1957–58 inclusive were published in Official Year Book No. 44, page 861, and previous issues.

(c) *1958–59 to 1962–63.* Following negotiations during 1958, a new wheat industry stabilization plan was enacted by the Commonwealth and the States towards the end of that year. The new plan follows the lines of the two earlier ones. Details of the plan are as follows:—

- (i) *Period of the Plan.* The plan will operate for five years. It will commence with the 1958–59 wheat crop and will end with the marketing of the 1962–63 crop.
- (ii) *Commonwealth Guarantee.* The Commonwealth will guarantee a return of 14s. 6d. a bushel to growers on up to 100 million bushels of wheat exported from the crop in the first year of the plan. The guaranteed return of 14s. 6d. is based on the findings of the recent survey of the economic structure of the wheat industry conducted by the Bureau of Agricultural Economics. It will be adjusted in each of the following years of the plan on up to 100 million bushels in accordance with the movements in costs based on a cost index established from the survey. The first two five-year Wheat Stabilization Plans each guaranteed a similar quantity of 100 million bushels exported.
- (iii) *Australian Wheat Board.* The Australian Wheat Board will be maintained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.
- (iv) *Stabilization Fund*—
 - (a) *Export Tax.* A tax will be collected on wheat exported which will be equivalent to the excess of the returns from export sales over the guaranteed return. However, the maximum rate of export tax will be 1s. 6d. a bushel.
 - (b) *Size of Fund.* The ceiling of the Stabilization Fund is established at £20 million; any excess beyond this figure will be returned to growers on the “first-in-first-out” principle.
 - (c) *Balance in Present Wheat Stabilization Fund.* The balance remaining in the Fund at the termination of the present plan will be carried forward to the new plan as the nucleus of a new stabilization fund.
 - (d) *Use of the Stabilization Fund.* When the average export realizations fall below the guaranteed return, the deficiency will be made up first by drawing upon the stabilization fund in respect of up to 100 million bushels of wheat from each crop. When the fund is exhausted, the Commonwealth will meet its obligations under the guarantee.

- (v) *Home Consumption Price.* The home consumption base price for 1958–59, the first year of the plan, has been established as 14s. 6d. a bushel, bulk basis, f.o.r. ports plus 2d. a bushel loading to cover the cost of transporting wheat to Tasmania as outlined in (vi) below. There is provision in the plan for annual adjustments in the following years in accordance with the guaranteed price as outlined in (ii) above.
- (vi) *Freight on Wheat to Tasmania.* Provision is made for a loading on the price of all wheat sold for consumption in Australia to the extent necessary to cover the cost of transporting wheat from the mainland to Tasmania in each season of the plan.
- (vii) *Premium on Western Australian Wheat.* A premium will be paid from export realizations on wheat grown in Western Australia and exported from that State in recognition of the natural freight advantage enjoyed by Western Australia owing to its proximity to the principal overseas markets for wheat. The premium will be 3d. a bushel.

By agreement between the parties concerned, the Australian Wheat Growers' Federation, the States and the Commonwealth, a poll of growers as to acceptance of the plan was not considered necessary. The earlier plans had been approved by polls of growers.

The cost of production of wheat, which for the first season of the plan, 1958–59, was fixed at 14s. 6d. a bushel by the legislation, rose to 14s. 10d. a bushel for the 1959–60 season. The guaranteed price for the 1959–60 season was, therefore, also 14s. 10d. a bushel, while the home consumption price, including a loading of 2d. a bushel to cover costs of shipment of wheat to Tasmania, became 15s. 0d. a bushel.

(iv) *Wheat Industry Research.* In 1957, the Commonwealth Parliament passed legislation providing for a levy of a farthing a bushel on wheat handled by the Australian Wheat Board. This money, contributed by the growers, is to be spent by the Wheat Research Committees set up in the wheat growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of £284,000 under the provisions of the Wheat Acquisition (Undistributed Moneys) Act 1958.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of £1 for £1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution.

The Council at its inaugural meeting in February, 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanization, the industry's cost structure and marketing problems.

The Council and the State Committees have incurred an estimated expenditure of £398,064 up to the end of June, 1959, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, Universities and Agricultural Colleges.

4. *Marketing of Wheat.*—(i) *Wheat Acquired and Disposed of.* (a) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board from the 1954–55 to 1958–59 harvests are shown in the following table:—

AUSTRALIAN WHEAT BOARD : WHEAT ACQUIRED, 1954-55 TO 1958-59.
(⁰⁰⁰ Bushels.)

Pool.	Harvest.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
18	.. .. 1954–55	32,385	46,431	14,605	28,636	30,628	65	152,750
19	.. .. 1955–56	51,789	39,079	14,098	26,107	49,649	39	180,761
20	.. .. 1956–57	24,014	32,931	5,837	29,154	28,171	22	120,129
21	.. .. 1957–58	4,617	29,547	5,247	12,535	29,306	74	81,326
22	.. .. 1958–59	60,001	41,216	15,206	29,548	53,348	82	199,401

(b) *Wheat Disposal.* Details relating to the disposal of wheat during the years ended 31 November, 1955 to 1959, are shown in the following table.

AUSTRALIAN WHEAT BOARD : DISPOSAL OF WHEAT, 1955 TO 1959.(a)
(^{'000 Bushels.})

Particulars.	1955.	1956.	1957.	1958.	1959.
Sold for export as wheat	63,171	95,399	66,972	34,399	70,940
Sold for export as flour (b)	34,024	34,950	32,334	16,868	25,258
Sold for local consumption as flour	38,012	39,832	41,162	39,213	40,174
Sold for other purposes	18,560	17,090	21,459	16,894	13,484

(a) Years ended 30th November.
exported.

(b) Includes wheat equivalent of manufactured wheat products

(ii) *Finance.* The Wheat Acquisition Regulations empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. The Wheat Industry Stabilization Act 1948 included similar provisions for advances to the reconstituted Board established under that Act and these provisions have been continued in the subsequent legislation.

AUSTRALIAN WHEAT BOARD : FINANCIAL OPERATIONS, POOLS Nos. 18 to 22.
(£'000.)

Particulars.	No. 18 Pool.(a) (1954-55 Harvest.)	No. 19 Pool.(a) (1955-56 Harvest.)	No. 20 Pool.(a) (1956-57 Harvest.)	No. 21 Pool.(b) (1957-58 Harvest.)	No. 22 Pool.(b) (1958-59 Harvest.)
Paid to growers	83,328	98,223	68,800	48,618	97,028
Rail freight	10,010	12,456	7,761	5,028	11,536
Expenses	7,660	8,806	6,189	4,167	8,245
<i>Total Payments</i>	100,998	119,485	82,750	57,813	116,809
Value of sales delivered	(c) 100,810	(d) 118,475	(e) 84,464	(f) 57,633	(g) 91,031

(a) Complete. (b) Incomplete. (c) Subject to addition of £188,000 withdrawn from Wheat Prices Stabilization Fund. (d) Subject to additional £1,010,000 withdrawn from Wheat Prices Stabilization Fund. (e) Includes £1,589,000 paid to Wheat Prices Stabilization Fund and £125,000 to Wheat Industry Research Fund. (f) Subject to additional £398,000 withdrawn from Wheat Prices Stabilization Fund and payment of £85,000 to Wheat Industry Research Fund. (g) Subject to additional £7,203,000 withdrawn from Wheat Prices Stabilization Fund and payment of £206,000 to Wheat Industry Research Fund.

NOTE.—Details of earlier pools will be found in previous issues of the Year Book.

(iii) *Advances to Growers.* Each year the size of the first advance to growers is announced by the Minister for Primary Industry before the commencement of the season. Additional payments are made as sufficient funds become available to the Board from sales realizations. Details of advances made to wheat growers in respect of the various pools are published in *Statistical Bulletin: The Wheat Industry, Australia*, last issued in March, 1960.

(iv) *Stabilization Fund.* Particulars of the most recent legislative provisions for this fund are given in para. 3 (iv) on page 899.

Amounts of £9,160,433 (equivalent to 1s. 5.4d. a bushel on all wheat exported) were paid into the Stabilization Fund from the Export Charge on exports from the 1953-54 harvest and £1,588,868 (equivalent to 6.716d. a bushel) from the 1956-57 crop. There were withdrawals from the Fund in respect of both the 1954-55 and 1955-56 harvests—£188,525 (equivalent to 0.296d. a bushel on all wheat exported) and £1,009,583 (1.975d. a bushel) respectively—to raise export realizations in accordance with guarantee. The balance of the Fund, plus interest from its investment, will first meet any payment needed for the 1957-58 wheat crop, estimated to be £398,000 (equivalent to 1.174d. a bushel)—the only Pool of the second Stabilization Plan not complete—and then the balance will form the nucleus of the Fund for the latest Plan.

5. *International Wheat Agreements.*—Details of the first and second International Wheat Agreements operative from 1st August, 1949, to 31st July, 1953, and from 1st August, 1953, to 31st July, 1956, respectively, were published in Official Year Book No. 42 (see pp. 840-1) and previous issues.

A third International Wheat Agreement covering a period of three years from 1st August, 1956, to 31st July, 1959, came into force on 1st August, 1956. The 1956 Agreement was substantially the same in form as the 1949 and 1953 Agreements, although amendments were made to many of the more important provisions.

The annual quota of 395 million bushels determined by the 1953 International Wheat Agreement was reduced in the 1956 Agreement by almost a quarter to 303 million bushels. The quotas were varied slightly during the course of the Agreement and in 1958–59 the total quota was 295.3 million bushels of which Australia's share was fixed at 29.5 million bushels.

Particulars of guaranteed sales and purchases and transactions actually recorded during 1958–59 are shown in the following table.

INTERNATIONAL WHEAT AGREEMENT : GUARANTEED SALES AND PURCHASES AND TRANSACTIONS RECORDED FOR 1958-59.(a)
(Million Bushels.)

Exporting Countries.			Importing Countries.		
Country.	Guaranteed Sales.(b)	Sales Recorded	Country.	Guaranteed Purchases.(c)	Purchases Recorded.
United States of America ..	128.8	81.2	Germany	55.1	55.2
Canada	100.3	83.5	Japan	36.7	34.9
Australia	29.5	15.8	Netherlands	25.7	16.8
France	16.1	8.7	Belgium	16.5	4.1
Argentina	14.3	0.2	Egypt	11.0	..
Sweden	6.3	1.6	Greece	11.0	..
			Remaining Importing Countries	139.3	80.0
Total	295.3	191.0	Total	295.3	191.0

(a) Wheat and wheat flour as wheat. (b) Quantities which exporting countries must sell if required by importing countries to do so at the maximum price. (c) Quantities which importing countries must buy if required to do so at the relevant minimum price.

A fourth International Wheat Agreement came into force on 1st August, 1959, covering a further period of three years from that date to 31st July, 1962. The 1959 Agreement, with some important variations, continues the arrangements covered by the earlier Agreements. The text of the new Agreement was negotiated at an international conference convened by the United Nations. The new Agreement was subject to ratification by a sufficient number of wheat exporting and importing countries by 1st December, 1959.

The agreement seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed range. The member exporting countries would compete to supply at prices within the agreed price range, which is 190 cents (Canadian currency), about 17s. Australian, to 150 cents, about 13s. 6d., a bushel. These prices are on the basis of Canada's No. 1 Manitoba Northern Wheat in bulk in store Fort William—Port Arthur.

Under the new Agreement, the member importing countries undertook to buy each year from the member exporting countries a stated percentage of their total commercial import requirements instead of a fixed quota as under previous agreements.

The United Kingdom, the world's largest importer of wheat, has decided to rejoin the agreement. On the basis of the recent level of commercial imports, it now appears that over 400 million bushels will be covered by the Agreement as compared with 295 million bushels in the last year of the previous Agreement.

Under the new agreement, the International Wheat Council is empowered to make an annual review of the world wheat situation, including the international implication of national policies in respect of wheat production, stocks, and marketing, and the disposal of wheat surpluses on non-commercial terms.

The proposed agreement does not retain the provision in the third agreement by which individual exporting countries had separate guaranteed quantities that they could call upon the member importing countries to buy at the minimum price.

There is provision for a right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Manitoba Northern Wheat—and the wheat supplied by the other member exporting countries.

6. Wheat Farms.—(i) Number. Particulars of the number of farms growing 20 acres and upwards of wheat for grain during each of the years 1954–55 to 1958–59, are shown in the following table. It should be noted that a farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING 20 ACRES AND UPWARDS OF WHEAT FOR GRAIN.

State.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
New South Wales	13,784	14,086	10,197	12,111	15,313
Victoria	10,547	9,714	7,674	8,856	9,074
Queensland	4,570	4,186	3,131	3,665	4,791
South Australia	8,892	8,571	7,852	7,515	7,774
Western Australia	7,979	7,962	7,943	7,957	8,660
Tasmania	114	78	45	95	104
Australian Capital Territory	10	9	4	10	19
Australia	45,896	44,606	36,846	40,209	45,135

(ii) *Size Classifications of Wheat Holdings.*—A special series of tabulations relating to rural holdings in Australia was compiled for 1955-56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955-56*. Condensed tables also appear in *Primary Industries, Part I.—Rural Industries*, Bulletin No. 51. The tables relating to wheat holdings show area under wheat for grain (classified by size), and the number of such holdings also growing oats and barley and the number with sheep, beef cattle and pigs.

7. Area, Production and Yield per Acre.—(i) *Area.* Wheat is the principal crop grown in Australia, and its progress since 1860-61 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1954-55 to 1958-59 in comparison with the averages for the ten-year period ended 1957-58:—

WHEAT FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	2,919	2,390	688	1,689	2,979	7	1	10,673
1955-56 ..	2,937	2,141	582	1,609	2,890	6	1	10,166
1956-57 ..	1,742	1,565	360	1,438	2,765	4	..	7,874
1957-58 ..	2,257	1,835	461	1,331	2,957	6	1	8,848
Average, 1948-49 to 1957-58 ..	3,005	2,358	561	1,656	2,951	6	2	10,539
1958-59 ..	3,178	1,810	704	1,408	3,292	6	1	10,399
PRODUCTION ('000 BUSHEL). (a)								
1954-55 ..	37,718	48,484	16,478	31,463	34,300	159	15	168,617
1955-56 ..	57,149	41,083	14,922	28,891	53,250	129	19	195,443
1956-57 ..	28,490	35,282	7,061	31,432	32,100	89	1	134,455
1957-58 ..	10,603	32,134	6,657	14,914	33,100	153	5	97,566
Average, 1948-49 to 1957-58 ..	48,392	46,474	11,547	28,375	39,256	142	28	174,214
1958-59 ..	66,441	42,697	16,097	32,032	57,650	164	40	215,121

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
YIELD PER ACRE (BUSHELS).(a)								
1954-55 ..	12.9	20.3	24.0	18.6	11.5	21.7	19.4	15.8
1955-56 ..	19.5	19.2	25.7	18.0	18.4	20.7	25.5	19.2
1956-57 ..	16.4	22.5	19.6	21.9	11.6	22.7	11.1	17.1
1957-58 ..	4.7	17.5	14.5	11.2	11.2	26.1	8.9	11.0
Average, 1948-49								
to 1957-58 ..	16.1	19.7	20.6	17.1	13.3	23.3	17.5	16.5
1958-59 ..	20.9	23.6	22.9	22.8	17.5	25.4	28.1	20.7

(a) 60 lb. per bushel.

A graph showing the expansion of the area sown to wheat for grain in Australia since 1900-01 appears on page 890 while a map showing the distribution of areas growing wheat for grain throughout Australia in 1954-55 appeared on page 833 of Official Year Book No. 43. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39 and 1947-48 appeared respectively in Official Year Books No. 22, page 695, No. 34, page 451 and No. 39, pages 977-8.

(ii) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season, resulting in considerable year to year fluctuations in production.

The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production normally approaches local demands, but Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to two-thirds of the crop is exported.

Australia's wheat production in 1958-59 was 215.1 million bushels, representing a record average yield of 20.7 bushels per acre. Production has been exceeded on only two other occasions, namely 220.1 million bushels in 1947-48 and 218.2 million bushels in 1949-50.

(iii) *Yield per Acre.* Short-term variations in yield per acre are due chiefly to seasonal influences. The best yields per acre for single seasons since 1901 were obtained in 1920-21, 16.1 bushels; in 1942-43, 16.8 bushels; in 1949-50, 17.8 bushels; in 1952-53, 19.1 bushels; in 1953-54, 18.4 bushels; in 1955-56, 19.2 bushels and in 1958-59, 20.7 bushels (a record).

(iv) *Decennial Averages, 1861-70 to 1950-59.* The following table shows the average area, production and yield per acre for decennial periods since 1861.

WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA.

Period.				Area.	Production.	Yield per Acre.
				'000 Acres.	'000 Bushels.	Bushels.
1861-70	..	..	..	831	10,622	12.8
1871-80	..	..	..	1,646	17,711	10.8
1881-90	..	..	..	3,258	26,992	8.3
1891-1900	..	..	..	4,087	29,934	7.3
1901-10	..	..	..	5,711	56,058	9.8
1911-20	..	..	..	8,928	95,480	10.7
1921-30	..	..	..	11,291	135,400	12.0
1931-40	..	..	..	14,176	177,758	12.5
1941-50	..	..	..	11,358	145,599	12.8
1950-59	..	..	..	10,321	176,656	17.1

It should be noted that with improved farming methods, including the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, the average yield per acre has shown a continued improvement in each decade since 1901.

8. *Varieties of Wheat Sown.*—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in better average yields, a greater uniformity of sample with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown during each season is restricted to about 45.

(ii) *States*.—1958–59. The principal varieties of wheat sown and the percentage of each to the total area sown in the five main producing States during 1958–59 were as follows:—New South Wales, Gabo (20.0), Glen Wari (16.0), Bencubbin (15.2); Victoria, Insignia (47.3), Pinnacle (22.7), Sherpa (8.9); Queensland, Festival (27.3), Gabo (17.3), Charter (13.1), Spica (12.5); South Australia, Gabo (23.0), Insignia (17.7), Dirk (16.7); Western Australia, Gabo (33.9), Bungulla (15.7), Bencubbin (10.8). A detailed table of wheat varieties sown in these five States appears in the annual bulletin *Primary Industries—Part 1.—Rural Industries*.

9. *F.A.Q. Standard of Wheat*.—Until the 1957–58 season, the Chambers of Commerce in each of the four main wheat-producing States determined the “f.a.q.” (fair average quality) standard for each season’s crop. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State.

Samples of wheat are obtained each year by the Chambers of Commerce from the different wheat districts and mixed to give a representative sample of the whole crop. From this representative sample the f.a.q. weight is determined by the use of the Schopper 1-litre scale chondrometer. Commencing with the 1958–59 season, the f.a.q. standard has been determined by State committees comprising representatives of the Australian Wheat Board, the silo authorities, the growers and the State Departments of Agriculture. “F.a.q.” is an Australian term, and the method of selling differs from that of other countries which sell according to sample, or (as in Canada) according to grades which are fixed and do not vary from year to year.

The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1959–60 season’s crop was as follows:—New South Wales, North, 64 lb.; South and West, 64½ lb.; Victoria, 62½ lb.; South Australia, semi-hard, 63 lb., soft, 63½ lb.; and Western Australia, 64½ lb.

10. *Price of Wheat*.—(i) *Home Consumption*. The price charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed was as follows:—Year ended 30th November, 1955, 14s. 1½d.; 1956, 13s. 5½d.; 1957, 13s. 9½d.; 1958, 14s. 4d.; 1959, 14s. 8d.; 1960, 15s. 0d. These prices include an amount used to meet freight charges incurred on wheat shipped to Tasmania (1½d. from 1955 to 1957; 2d. in subsequent years). The figure quoted for 1958 does not apply to New South Wales and Queensland where, because of the necessity of meeting the extra cost of importing wheat from Canada and Western Australia, the prices, during the greater part of the year, were 18s. 4½d. and 16s. 9½d. respectively.

(ii) *Export Wheat Prices—Australian Wheat Board’s Basic Selling Price*. The monthly average of the Wheat Board’s basic export selling prices for f.a.q. bulk wheat f.o.b. basis was 13s. 5½d. for the season ended 31st July, 1957, 14s. 6d. for the season ended 31st July, 1958, and 13s. 10d. for the season ended 31st July, 1959, both for wheat sold under the International Wheat Agreement and for “free” wheat sold on the open market. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The maximum and minimum prices fixed under the 1956 International Wheat Agreement are expressed in terms of “Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund for No. 1 Manitoba Northern wheat in bulk in store Fort William—Port Arthur.” The maximum price was set at 200 cents a bushel and the minimum at 150 cents for f.a.q. wheat. Under the current 1959 Agreement operative from 1st August, 1959 (see paragraph 5, page 901), the agreed price range is between 190 cents and 150 cents. Directly converted into Australian currency these limits are approximately 17s. and 13s. 6d. a bushel respectively.

Details of export wheat prices in previous years, including those received for wheat sold under the terms of the 1949–1953 International Wheat Agreement, are given in Official Year Book No. 40, pages 849–50, and Statistical Bulletin: *The Wheat Industry, Australia*, No. 95 of April, 1959, and in previous issues of these publications.

11. *Value of the Wheat Crop*.—The estimated gross value of the wheat crop in each State and in Australia during the season 1958–59 and the value per acre are shown below.

WHEAT FOR GRAIN: VALUE OF CROPS (a), 1958–59.

Particulars.	N.S.W.	Victoria.	Q’land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £’000	43,994	28,275	10,972	21,896	38,820	105	25	144,087
Value per Acre £	13.8	15.6	15.5	15.6	11.8	16.3	17.4	13.9

(a) Gross value of total crop, including wheat used for seed and for stock feed on farms.

12. **Production and Disposal of Wheat in Australia.**—In the following table, details are given of the production of wheat and its disposal during each of the years ended 30th November, 1955 to 1959. The particulars respecting local consumption refer to sales actually executed by the Australian Wheat Board, whilst those respecting exports represent actual shipments. (For particulars of production and yield from 1900–01 *see* graph, p. 890.)

WHEAT : PRODUCTION AND DISPOSAL, AUSTRALIA.

(Million Bushels.)

Particulars.	Year ended 30th November—				
	1955.	1956.	1957.	1958.	1959.
Opening stocks (including flour as wheat)	94.9	95.0	84.2	41.5	16.5
Production	168.6	195.4	134.5	97.6	215.1
Imports .. .. .	..	..	..	1.5	..
<i>Total Available Supplies</i> ..	<i>263.5</i>	<i>290.4</i>	<i>218.7</i>	<i>140.6</i>	<i>231.6</i>
Exports—					
Wheat	64.5	93.7	69.3	33.6	71.7
Flour as wheat(a)	35.0	36.8	36.6	17.5	26.8
Breakfast foods and other products(b) ..	1.0	1.4	1.6	0.6	0.4
Local Consumption—					
Flour as wheat	38.0	39.8	41.2	39.2	40.2
Stock feed	16.5	15.3	19.6	15.0	11.6
Seed	10.1	7.9	9.1	11.1	11.2
Breakfast foods and other products(b) ..	2.0	1.7	1.9	1.9	1.9
Balance retained on farm (excluding seed)	5.8	6.7	5.3	6.1	4.5
Closing stocks (including flour as wheat) ..	95.0	84.2	41.5	16.5	65.4
<i>Total Disposals</i>	<i>267.9</i>	<i>287.5</i>	<i>226.1</i>	<i>141.5</i>	<i>233.7</i>
Excess (+) or Deficiency (–) of Disposals in respect of Available Supplies(c) ..	+4.4	–2.9	+7.4	+0.9	+2.1

(a) Includes wheatmeal and sharps. (b) In terms of wheat.
unrecorded movements in stocks, gain or loss in out-turn, etc.

(c) Includes allowance for

13. **Imports of Wheat.**—Due to drought conditions in 1957–58, wheat supplies, particularly in New South Wales, were insufficient for local requirements. As a result, 1,136,000 bushels were imported from Canada during March, April and May, 1958, and a further 349,000 bushels in July, 1958.

Wheat and flour have been imported in substantial quantities on only two previous occasions since 1900; in 1902–3 the wheat harvest was only 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported while an equivalent of 7,279,000 bushels was imported in 1914–15 to supplement the yield of 25 million bushels produced in that season.

14. **Exports of Wheat and Flour.**—(NOTE: Statistics in this paragraph relate to years ended 30th June). (i) *Quantities.* The following table shows particulars of the exports of wheat and flour and total of both in terms of wheat for each of the years 1954–55 to 1958–59. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 46.3 bushels of grain.

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Quantity.				Value. (£'000.)		
	Wheat.	Flour.		Total as Wheat.	Wheat.	Flour.	Total.
		As Flour. (a)	As Wheat. (b)				
	'000 bushels.	Tons. (2,000 lb.)	'000 bushels.	'000 bushels.			
1954-55	63,133	683,520	31,647	94,780	45,222	21,184	66,406
1955-56	71,041	684,229	31,680	102,721	46,456	20,273	66,729
1956-57	91,107	766,655	35,496	126,603	60,058	22,234	82,292
1957-58	39,575	479,985	22,223	61,798	28,494	15,059	43,553
1958-59	54,631	467,699	21,654	76,285	38,381	14,001	52,382

(a) White flour, sharps and wheatmeal for baking.
to be equivalent to 46.3 bushels of wheat.

(b) One ton (2,000 lb.) of flour is taken

(ii) *Destination.* (a) *Wheat.* The following table shows the exports of wheat to various countries for each of the five years ended 1958-59.

WHEAT: EXPORTS FROM AUSTRALIA.

('000 Bushels.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	19,134	20,442	26,699	9,792	21,225
New Zealand	7,979	9,067	10,915	9,680	8,229
India	17,416	5,562	23,274	434	1,317
Pakistan .. ..	..	..	6,195	4,720	720
Other Commonwealth Countries ..	6,738	6,235	5,727	6,843	11,245
Japan	2,034	11,261	3,427	6,762	7,568
Germany, Federal Republic of ..	5,084	8,189	7,950	..	1,754
Other Foreign Countries	4,748	10,285	6,920	1,344	2,573
Total	63,133	71,041	91,107	39,575	54,631

(b) *Flour.* The following table shows the exports of flour to various countries for each of the five years ended 1958-59. The figures relate to exports of white flour, sharps and wheatmeal for baking.

FLOUR : EXPORTS FROM AUSTRALIA.

(Tons of 2,000 lb.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	80,832	67,136	80,735	43,156	45,837
Ceylon	112,484	115,899	181,137	51,613	61,382
Malaya, Federation of	88,546	81,740	71,963	70,299	92,427
Mauritius	20,102	12,659	27,660	17,411	20,362
Singapore	77,956	54,707	47,243	37,590	40,735
Other Commonwealth Countries ..	90,797	86,238	102,189	94,785	102,996
Indonesia	95,510	178,098	115,660	62,897	37,856
Sudan	20,580	14,415	28,762	11,258	..
Other Foreign Countries	96,713	73,337	111,306	90,976	66,104
Total	683,520	684,229	766,655	479,985	467,699

15. **Stocks of Wheat and Flour.**—Stocks of wheat (including flour in terms of wheat) held by each State at 30th November for the years 1955 to 1959 are shown in the following table. These data relate to stocks held at mills, sidings, ports and depots as recorded by the Australian Wheat Board.

**WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT): STOCKS AT
30th NOVEMBER.(a)**

('000 Bushels.)

30th November—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1955	17,483	28,434	4,049	18,470	26,278	256	94,970
1956	21,365	22,821	1,973	15,223	22,534	265	84,181
1957	8,982	13,304	203	13,732	5,056	215	41,492
1958	4,420	6,172	116	3,262	2,260	222	16,452
1959	19,934	16,390	987	5,950	21,657	447	65,365

(a) One ton of flour is taken as equivalent to 46.3 bushels of wheat.

16. **Bulk Handling and Storage of Wheat in Australia.**—(i) *Description and Development of the Bulk Handling System.* A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954–8 of Official Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and, in more recent years, other States have also introduced bulk systems.

(ii) *Bulk Handling and Storage in the States.* Particulars of the operation of the bulk handling and storage systems and projected extensions in the States concerned are set out below:—

(a) *New South Wales.* Bulk handling facilities are operated by the Grain Elevators Board of New South Wales. The capacity of storages in the country for the 1959–60 season totalled 61,720,000 bushels and comprised 182 elevators (26,390,000 bushels), 13 horizontal type concrete and steel storages (3,200,000 bushels), 4 sub-terminals (16,500,000 bushels), 69 bulkheads (6,930,000 bushels) and 12 bulk depots (8,700,000 bushels). In addition, port terminal facilities provided storage for 4,200,000 bushels at Newcastle and 7,500,000 bushels at Sydney, making a total capacity of 73,420,000 bushels for the State.

(b) *Victoria.* The Victorian Grain Elevators Board operates 193 elevators with a storage capacity of 27,424,000 bushels and a terminal elevator at Geelong with a capacity of 4,100,000 bushels. Storages for 18,000,000 bushels, adjacent to the permanent terminal, have been constructed at Geelong.

Temporary measures for extending bulk handling facilities have been adopted and sub-terminals constructed or acquired at Dunolly, Murtoa and Warracknabeal with a capacity of 22,000,000 bushels. Temporary bulkheads have also been used and in the 1959–60 season there were 35 available for use with a total capacity of 2,525,000 bushels.

(c) *Queensland.*—Bulk storages in this State are controlled and operated by the State Wheat Board. The capacity in the country for the 1959–60 season totalled about 4,500,000 bushels. In addition to the silos and bulkheads, approximately 420,000 bushels will be stored in temporary steel-mesh bins.

The new terminal bulk storage at Pinkenba commenced receiving wheat in July, 1959, and the storage capacity is 1,300,000 bushels.

(d) *South Australia.* Since the formation of the South Australian Co-operative Bulk Handling Ltd. in 1955, steady progress has been maintained in the expansion of the system.

The present capacity of bulk storages is 12,950,000 bushels comprising 1,000,000 bushels at Ardrossan; 1,510,000 at Wallaroo; 1,250,000 at Port Lincoln and 9,190,000 in country areas.

For the 1959-60 season, wheat was received in bulk at 22 installations in country areas in addition to the terminals at Ardrossan, Wallaroo and Port Lincoln.

For the 1960-61 season, the completion of a further five country silos will increase the capacity by 1,440,000 bushels which will give the South Australian Co-operative Bulk Handling Ltd. capacity to handle 14,390,000 bushels of wheat in bulk.

(e) *Western Australia.* The bulk handling system is operated by Co-operative Bulk Handling Ltd., which is a company controlled by growers. In 1959-60, there were 283 sidings equipped with bulk handling facilities and the whole of the marketable harvest was received in bulk.

The system of storage at country stations in Western Australia comprises fixed installations of galvanized iron bins and iron and timber horizontal bulkheads. In addition, a type of temporary roofed bulkhead consisting of timber and iron is used. This latter type of storage can be transferred to suit operational requirements, and therefore lends flexibility to the system. Terminal installations comprise concrete silos and timber and iron horizontal bulkheads with the exception that one port is equipped with iron silos instead of concrete. Plans are in hand to increase the number of vertical concrete cell type storages at the main ports.

(f) *Tasmania.* In order to meet the change to bulk handling of wheat in the mainland exporting States, the Tasmanian Government has constructed grain elevators at Hobart, Launceston and Devonport, each with a capacity of 300,000 bushels, for storage of bulk wheat shipments from the mainland.

17. *World Area and Production of Wheat.*—The details in the following table of the world area and production of wheat by principal countries and by continents have been compiled from official records of the countries concerned so far as they are available, but more particularly from the statistics published by the Food and Agriculture Organization of the United Nations, and the Foreign Agricultural Service of the United States Department of Agriculture. The harvests shown for countries in the Northern Hemisphere are those reaped during the period March to October whilst those for the Southern Hemisphere cover the period November to February following.

WHEAT : AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES.

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>North America—</i>									
Canada ..	22,781	21,117	20,899	573,062	385,508	371,730	25.2	18.3	17.8
United States ..	49,784	43,806	53,577	1,004,272	950,662	1,462,218	20.2	21.7	27.3
<i>Total(c)</i> ..	74,970	67,380	76,540	1,624,000	1,388,000	1,881,000	21.7	20.6	24.6

NOTE.—See next page for footnotes.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES—continued.

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>Europe—</i>									
France.. ..	7,000	11,534	11,404	225,000	407,200	353,000	32.1	35.3	31.0
Italy	12,350	12,375	12,300	318,930	310,000	360,000	25.8	25.1	29.3
Spain	10,638	10,820	10,872	155,000	180,000	167,000	14.6	16.6	15.4
<i>Total(c)</i> ..	67,580	73,440	73,590	1,585,000	1,950,000	1,865,000	23.5	26.6	25.3
<i>U.S.S.R.</i> ..	153,000	170,000	165,000	2,000,000	1,800,000	2,300,000	13.1	10.6	13.9
<i>Africa—Total(c)</i> ..	17,400	17,520	18,180	215,000	185,000	190,000	12.4	10.6	10.5
<i>Asia—</i>									
China	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
India	30,386	33,580	29,300	319,910	347,700	290,000	10.5	10.4	9.9
Pakistan ..	11,298	11,807	11,815	123,760	142,000	137,000	11.0	12.0	11.6
Turkey	18,125	17,878	16,000	215,000	250,000	240,000	11.9	14.0	15.0
<i>Total(c)</i> ..	146,890	146,620	140,680	1,860,000	1,910,000	1,910,000	12.7	13.1	13.6
<i>South America—</i>									
Argentina ..	13,324	10,858	12,954	261,980	213,500	245,000	19.7	19.7	18.9
<i>Total(c)</i> ..	20,840	18,740	20,260	368,000	320,000	335,000	17.7	17.1	16.5
<i>Oceania—</i>									
Australia ..	7,874	8,848	10,399	134,455	97,566	215,121	17.1	11.0	20.7
<i>Total(c)</i> ..	7,940	8,930	10,570	138,000	101,000	222,000	17.3	11.3	21.0
<i>World Total(c)</i> ..	488,620	502,630	504,820	7,789,000	7,654,000	8,703,000	15.9	15.2	17.2

(a) Figures for countries other than Australia refer to harvested areas as far as possible. For Australia area sown is shown. (b) Preliminary. (c) Totals (estimates) include allowances for any missing data for countries shown and for producing countries not shown. (d) Not available. See footnote (c).

18. Exports—Principal Countries.—The following table shows the quantities of wheat exported from the chief exporting countries for the years 1956 to 1958 based on statistics recently published by the Food and Agriculture Organization of the United Nations.

While Australia's production of wheat averages less than 3 per cent. of the world's total, its exports account for a much higher proportion of the total quantities shipped. In 1957, Australia's share of world wheat exports was 7.4 per cent. but in 1958 this fell, as a result of the poor 1957 harvest, to 4.5 per cent.

WHEAT(a) : EXPORTS, PRINCIPAL COUNTRIES.

Exporting Country.	1956.		1957.		1958.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United States of America	470.6	38.0	475.9	36.4	393.6	33.7
Canada	341.7	27.6	267.0	20.4	311.7	26.7
Argentina	94.4	7.6	98.5	7.5	79.1	6.8
France	52.6	4.2	50.3	3.8	67.9	5.8
Australia	136.1	11.0	97.3	7.4	52.8	4.5
All other	144.1	11.6	320.1	24.5	262.2	22.5
Total	1,239.5	100.0	1,309.1	100.0	1,167.3	100.0
World Production (mill. bus.) ..	7,790		7,660		8,705	
Proportion of Australia's Production to World Production	%		%		%	
	1.7		1.3		2.5	

(a) Includes flour expressed in terms of wheat.

19. Imports—Principal Countries.—The principal importers of wheat, together with quantities imported, for the periods indicated, are shown in the following table:—

WHEAT(a) : IMPORTS, PRINCIPAL COUNTRIES.

Importing Country.	1956.		1957.		1958.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United Kingdom	197.2	16.8	186.7	14.6	198.6	17.1
India and Pakistan	57.0	4.9	131.7	10.3	125.8	10.8
Japan	86.0	7.3	85.2	6.7	86.8	7.5
Germany, Federal Republic of ..	109.1	9.3	106.6	8.3	83.4	7.2
Brazil	55.0	4.7	54.2	4.2	57.0	4.9
United Arab Republic	25.1	2.1	30.9	2.4	43.1	3.7
Netherlands	34.4	2.9	34.9	2.7	38.9	3.4
Yugoslavia	48.6	4.1	40.5	3.2	27.2	2.3
Poland	24.4	2.1	65.9	5.2	24.5	2.1
All other	536.6	45.8	542.0	42.4	475.7	41.0
Total	1,173.4	100.0	1,278.6	100.0	1,161.0	100.0

(a) Includes flour expressed in terms of wheat.

§ 5. Oats.

1. **Area, Production and Yield per Acre.**—Oats is usually next in importance to wheat among the grain crops cultivated in Australia, but while wheat grown for grain in 1958–59 accounted for 41.4 per cent., oats grown for grain represented only 15.8 per cent. of the area of all crops. The area, production and yield per acre of oats for the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table:—

OATS FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA ('000 ACRES).								
1954–55 ..	657	644	36	340	874	23	(a)	2,574
1955–56 ..	902	871	36	425	1,091	29	(a)	3,354
1956–57 ..	420	613	28	427	1,051	17	(a)	2,556
1957–58 ..	716	622	19	427	1,154	21	(a)	2,959
Average, 1948–49 to 1957–58 ..	561	632	27	348	809	21	(a)	2,398
1958–59 ..	1,130	971	39	481	1,330	22	1	3,974

PRODUCTION ('000 BUSHEL). (b)								
1954–55 ..	7,667	10,021	597	4,508	9,585	452	4	32,834
1955–56 ..	16,537	14,858	743	7,280	16,516	548	5	56,487
1956–57 ..	6,274	9,555	553	8,318	10,441	253	2	35,396
1957–58 ..	3,944	9,528	256	3,423	13,793	482	(c)	31,426
Average, 1948–49 to 1957–58 ..	8,147	10,281	489	4,956	10,023	434	5	34,335
1958–59 ..	27,638	23,339	832	11,992	22,585	491	28	86,905

YIELD PER ACRE (BUSHEL). (b)								
1954–55 ..	11.7	15.5	16.4	13.3	11.0	20.0	20.4	12.8
1955–56 ..	18.3	17.1	20.8	17.1	15.1	19.1	17.1	16.8
1956–57 ..	14.9	15.6	20.1	19.5	9.9	15.3	12.5	13.8
1957–58 ..	5.5	15.3	13.4	8.0	12.0	23.3	7.4	10.6
Average, 1948–49 to 1957–58 ..	14.5	16.3	18.2	14.3	12.4	20.4	16.4	14.3
1958–59 ..	24.5	24.0	21.3	24.9	17.0	22.1	26.6	21.9

(a) Less than 500 acres.

(b) 40 lb. per bushel.

(c) Less than 500 bushels.

A graph showing the production of oats appears on page 891.

In 1958–59, extremely favourable seasonal conditions for all cereal crops were experienced and production of oats reached an all-time high at 86,905,000 bushels. This followed the small crop of 31,426,000 bushels produced in the previous year when drought conditions considerably reduced yields in some States. The previous highest production was recorded in 1955–56 when 56,487,000 bushels were produced.

During the five seasons ending 1957–58, on an average, 5.7 million bushels were exported; 1.8 million bushels were used in factories for oatmeal; and 7.9 million bushels were used for seed purposes; leaving a balance of 22.5 million bushels for stock feed (principally unprocessed) and carry-over.

The average yield for the 1958–59 season of 21.9 bushels an acre is the highest yet recorded. The previous highest yield in recent years was 19.3 bushels an acre in the 1947–48 season which was the highest since 1920–21. The yield per acre recorded in the abnormally dry season 1944–45, namely 4.4 bushels, was the lowest ever recorded for Australia.

2. **Price of Oats.**—The average wholesale price in the Melbourne market for oats of good milling quality was 6s. 11d. a bushel in 1958–59. This represents a decrease of approximately 37 per cent. on the price in 1957–58 (10s. 11½d.).

3. **Value of Oat Crop.**—The estimated gross value of the oat crop in each State for the 1958–59 season and the value per acre were as follows:—

OATS : VALUE OF CROP, 1958-59.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value	£'000	11,977	6,820	416	3,497	8,028	219	7	30,964
Value per acre..	£	10.6	7.0	10.6	7.3	6.0	9.9	6.8	12.8

4. **Exports.**—The production of oats in Australia is sufficient to allow for a regular export trade. The quantities and values of oats exported from Australia during the years 1954–55 to 1958–59 are shown hereunder:—

OATS : EXPORTS, AUSTRALIA.

Particulars.		1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity ..	.. '000 bus.	2,872	9,608	8,165	2,296	17,557
Value ..	.. £'000	1,376	3,578	2,972	1,064	6,512

In 1958–59, the principal countries of destination of the exports were the Federal Republic of Germany, the United Kingdom, the Netherlands and Italy. Imports of oats into Australia are not recorded separately.

5. **Oatmeal, etc.**—In 1957–58, the production of oatmeal was 13,763 tons for porridge and 7,781 tons for other purposes. This was equivalent to about 2,400,000 bushels of oats. In 1958–59, 14,446 tons of oatmeal for porridge was produced.

6. **World Production.**—The world's production of oats for the year 1959, according to preliminary details released by the United States Department of Agriculture, amounted to 3,685 million bushels, harvested from 112.9 million acres, representing an average yield of 32.6 bushels per acre. This compared with an estimated production in the previous year of 4,235 million bushels from an area of 116.5 million acres and an average yield of 36.3 bushels an acre.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1958–59 season being 175,651 acres, or 98 per cent. of the total for Australia. In all States except South Australia, the crop is grown to some extent for green fodder, particularly in connexion with the dairying industry.

2. **Area, Production and Yield per Acre.**—Although maize for grain is grown extensively in other countries, the area sown to maize for grain in Australia has averaged only 177,025 acres during the ten years ended 1957–58. The area in 1958–59 was 179,542 acres, a slight decrease on the previous year, and considerably less than the comparatively large areas of 414,914 and 400,544 acres sown in 1910–11 and 1927–28 respectively.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialized industry of growing hybrid strains for seed.

The area, production and yield per acre of maize for grain in each State for the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are given in the following table. Separate details for hybrid and other varieties are shown for New South Wales, Victoria and Queensland for 1958–59.

MAIZE FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES).								
1954-55 ..	50,617	4,379	114,673	2	8	8	..	169,687
1955-56 ..	55,678	3,535	108,146	6	6	65	2	167,441
1956-57 ..	53,225	2,727	125,606	(b)	10	2	..	181,570
1957-58 ..	57,513	4,278	122,245	(b)	20	..	6	184,062
Average, 1948-49 to 1957-58 ..	59,382	4,551	113,043	(b)	29	18	1	177,024
1958-59—								
Hybrid ..	48,181	3,135	59,003	} (b)	10	..	..	179,542
Other ..	14,068	746	54,399					
PRODUCTION ('000 BUSHEL).(c)								
1954-55 ..	1,767	229	3,080	..	..	..	..	5,076
1955-56 ..	1,868	176	2,710	..	..	1	..	4,755
1956-57 ..	1,945	81	3,468	(b)	..	..	..	5,494
1957-58 ..	2,237	241	3,161	..	..	..	..	5,639
Average, 1948-49 to 1957-58 ..	1,947	204	2,942	(b)	..	1	..	5,094
1958-59—								
Hybrid ..	2,303	181	2,158	} (b)	..	..	..	6,717
Other ..	557	22	1,496					
YIELD PER ACRE (BUSHEL).(c)								
1954-55 ..	34.9	52.3	26.9	15.0	9.8	21.6	..	29.9
1955-56 ..	33.5	49.7	25.1	12.5	15.0	19.4	80.0	28.4
1956-57 ..	36.6	29.6	27.6	(b)	12.0	30.0	..	30.3
1957-58 ..	38.9	56.5	25.9	(b)	14.9	..	..	30.6
Average, 1948-49 to 1957-58 ..	32.8	44.8	26.0	(b)	12.7	24.7	20.0	28.8
1958-59—								
Hybrid ..	47.8	57.7	36.6	} (b)	25.5	..	..	37.4
Other ..	39.6	30.3	27.5					

(a) Includes 3 acres in the Northern Territory.
per bushel.

(b) Not available for publication.

(c) 56 lb.

The average yield for Australia for the ten-year period ended 1957-58 was 28.8 bushels per acre. Among principal producing countries during 1958, the United States of America averaged 51.7 bushels per acre and Italy 44.4 bushels.

3. **Price of Maize.**—The average wholesale price of maize in the Melbourne market in 1958-59 was 15s. 4½d. a bushel compared with 21s. 2½d. in 1957-58.

4. **Value of Crop.**—The estimated gross value of the crop in each State for the 1958-59 season and the value per acre were as follows:—

MAIZE FOR GRAIN : VALUE OF CROP—1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Aggregate value .. £'000	2,204	137	2,288	..	..	..	4,629
Value per acre .. £	35.4	35.3	20.2	..	..	..	25.8

5. **Exports of Maize and Maize Products.**—Details of exports of maize for the five years ended 1958-59 are shown below.

MAIZE : EXPORTS, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity .. '000 bus.	458	185	32	48	15
Value £'000	301	119	26	30	10

Imports of Maize into Australia are not recorded separately.

Exports of cornflour, which prior to the 1939-45 War were very small, increased considerably during the war years, the principal country of destination being New Zealand. In 1958-59, 682,700 lb., valued at £16,427, were exported. It should be noted that these figures include some quantities of "cornflour" made from wheat. Imports of cornflour into Australia are not recorded separately.

6. **World Production.**—According to preliminary details released by the United States Department of Agriculture, world production of maize in the year 1958 amounted to 7,335 million bushels, harvested from 243 million acres, giving an average yield per acre of 30.2 bushels. This compared with production in the previous year of 6,575 million bushels from 233 million acres, and an average per acre of 28.3 bushels.

The United States of America is the most important maize-producing country in the world and during the three years ended 1958 the area sown to maize in that country averaged 74 million acres or 31 per cent. of the world total. During the same period, production averaged 3,556 million bushels or about 52 per cent. of the world total. These figures are not strictly comparable with those for other countries included in the above-mentioned world totals, as the area and an estimate of grain equivalent of maize used as green fodder are included.

A graph showing the production of maize in Australia appears on page 891.

§ 7. Barley.

1. **Area, Production and Yield per Acre.**—The area sown to barley for grain expanded considerably during the ten years preceding the 1939-45 War—from 383,000 acres in 1930-31 to 836,000 acres in 1939-40. This increase was followed by a decline to 443,000 acres in 1943-44 but the area sown has increased in succeeding years and in 1958-59 reached the record level of 2,381,000 acres. Victoria was originally the principal barley-growing State but since 1913-14 its place has been taken by South Australia which accounted for 56 per cent. of the Australian acreage in 1958-59. There has been a substantial increase in the acreage sown in most States in recent years particularly in Western Australia and Queensland. Small areas of barley are sown for hay, and larger quantities are sown for green forage but these are not included in this section. The production of barley for grain in Australia in 1958-59 was a record at 62,976,000 bushels. The previous highest recorded production occurred in 1956-57 when 49,279,000 bushels were produced. The area, production and yield per acre of barley for grain in the several States for the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown in the following table:—

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	37	280	87	1,020	260	7	..	1,691
1955-56 ..	54	309	146	1,042	337	6	..	1,894
1956-57 ..	44	345	131	1,222	344	7	..	2,093
1957-58 ..	69	352	173	1,212	307	8	..	2,121
Average, 1948-49 to 1957-58 ..	31	273	77	954	181	7	..	1,523
1958-59—								
Malting (2-Row)	73	344	224	1,265	51	8	..	1,965
Other (6-Row)	33	19	25	67	271	1	..	416
Total ..	106	363	249	1,332	322	9	..	2,381

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
PRODUCTION ('000 BUSHEL). (a)								
1954-55 ..	500	4,946	2,573	18,376	2,805	200	..	29,400
1955-56 ..	1,120	6,877	4,216	24,598	4,653	191	..	41,655
1956-57 ..	781	7,549	2,960	34,003	3,751	235	..	49,279
1957-58 ..	685	5,447	2,956	17,552	3,556	270	..	30,466
Average, 1948-49 to 1957-58 ..	499	5,404	1,809	20,730	2,281	199	..	30,922
1958-59—								
Malting (2-Row)	2,019	8,174	7,372	35,974	809	276	..	54,624
Other (6-Row)	903	407	732	1,690	4,602	19	..	8,352
Total ..	2,922	8,581	8,103	37,665	5,410	295	..	62,976
YIELD PER ACRE (BUSHEL). (a)								
1954-55 ..	13.6	17.6	29.5	18.0	10.8	27.5	..	17.4
1955-56 ..	20.7	22.2	29.0	23.6	13.8	30.2	15.0	22.0
1956-57 ..	17.7	21.9	22.5	27.8	10.9	33.2	..	23.5
1957-58 ..	10.0	15.5	17.1	14.5	11.6	32.2	..	14.4
Average, 1948-49 to 1957-58 ..	16.4	19.8	23.4	21.7	12.6	30.3	22.0	20.3
1958-59—								
Malting (2-Row)	27.5	23.8	32.9	28.4	16.0	31.8	..	27.8
Other (6-Row)	27.8	21.0	29.6	25.1	17.0	28.3	..	20.1
Total ..	27.6	23.6	32.6	28.3	16.8	31.6	..	26.5

(a) 50 lb. per bushel.

For Australia as a whole, 83 per cent. of the area of barley for grain in 1958-59 was sown with malting or 2-row barley while the remainder consisted of 6-row, or feed, varieties. The proportion, however, varied considerably in the several States. The utilization of barley during the season 1957-58 was as follows:—exports, 13,198,000 bushels; malting and distilling, 8,506,000 bushels; pearl barley, 147,000 bushels; seed and stock feed, 10,069,000 bushels.

The following table sets out the acreage and production of malting and other barley in Australia during the seasons 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58.

BARLEY, MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	Area. ('000 Acres.)			Production. ('000 Bushels.) (a)			Yield per Acre. (Bushels.) (a)		
	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.
1954-55 ..	1,391	300	1,691	25,622	3,778	29,400	18.4	12.6	17.4
1955-56 ..	1,510	384	1,894	35,470	6,185	41,655	23.5	16.1	22.0
1956-57 ..	1,705	388	2,093	43,870	5,408	49,278	25.7	13.9	23.5
1957-58 ..	1,758	363	2,121	26,404	4,062	30,466	15.0	11.2	14.4
Average, 1948-49 to 1957-58 ..	1,273	250	1,523	27,070	3,852	30,922	21.3	15.4	20.3
1958-59 ..	1,965	416	2,381	54,624	8,352	62,976	27.8	20.1	26.5

(a) 50 lb. per bushel.

A graph showing the production of barley appears on page 891.

During the ten-year period shown, the average area of barley of the malting, or 2-row, class was over five times the corresponding figure for barley of the 6-row, or feed, class. The yield per acre for malting barley was 38 per cent. higher than that for 6-row barley.

2. **Australian Barley Board.**—Following the outbreak of war in 1939, the Australian Barley Board, representative of the whole industry, was formed, and the Commonwealth Government acceded to its request to acquire the entire 1939-40 barley crop, which was placed under the control of the Board. A pool was established from which proceeds were

distributed with appropriate margins for different grades of barley. The Board was responsible for the marketing and storage of barley, and, like the Australian Wheat Board, appointed licensed receivers to receive grain on its behalf and to act as agents for all local and overseas sales.

Following the decision of the Commonwealth Government not to acquire barley in the smaller producing States after 1941-42, the pooling of barley in Queensland reverted to the control of the Queensland Barley Board (originally established in 1930) and in Western Australia a State Barley Board was established to control marketing.

The Commonwealth Government ceased to acquire barley altogether after the 1947-48 crop, and the Victorian and South Australian Governments formed a joint board under the same name as the former Commonwealth board to market the 1948-49 and subsequent crops of the two States. Details for the seasons from 1953-54 to 1958-59 are shown in the table below.

AUSTRALIAN BARLEY BOARD : BARLEY RECEIVED, SOLD, ETC.

Pool.			Quantity Received.	Quantity Sold.(a)	Total Advances made per Bushel on 2-row No. 1 Grade less freight.	Total Net Payments to Growers.
			'000 bushels.	'000 bushels.	s. d.	£
No. 15 (1953-54 Crop)	..	..	34,430	34,586	10 4. 101	15,417,374
" 16 (1954-55 "	)	..	20,679	20,709	12 10. 92	11,953,430
" 17 (1955-56 "	)	..	29,357	29,454	10 3. 441	12,990,173
" 18 (1956-57 "	)	..	39,029	39,102	10 2. 541	16,965,609
" 19 (1957-58 "	)	..	18,023	18,195	11 9. 61	9,151,748
" 20 (1958-59 "	)	..	42,550	42,550	(b) 10 0	17,826,223

(a) Includes surplus in out-turn except for No. 20 Pool for which this surplus has not yet been determined. (b) As at 31st December, 1959. At that date, it was estimated that the amount still to be paid to growers was 9.497d. per bushel.

3. Prices.—The average wholesale price for 2-row English malting barley in the Melbourne market during 1958-59 was 13s. 9d. compared with 13s. 7½d. in 1957-58.

4. Value of Barley Crop. The estimated gross value of the barley crop in each State for the 1958-59 season and the value per acre are shown in the following table:—

BARLEY FOR GRAIN : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Aggregate value £'000	2,092	4,165	4,106	19,944	2,781	216	33,304
Value per acre .. £	19.7	11.5	16.5	15.0	8.6	24.0	14.0

5. Exports.—Exports of barley during the five years ended 1958-59 averaged 23,572,000 bushels. South Australia was the principal exporting State and Japan, the Federal Republic of Germany, the Netherlands and the United Kingdom were the principal countries to which barley was shipped. Particulars of Australian exports for the years 1954-55 to 1958-59 are shown in the following table:—

BARLEY : EXPORTS, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity '000 bus.	18,867	21,065	26,501	21,501	29,924
Value £'000	10,357	10,471	12,745	9,474	16,898

Imports of barley into Australia are not recorded separately.

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1958-59 amounting to 232,531 lb., valued at £10,101, consigned mainly to Malaya.

6. *Malt.*—(i) *Production.* Details of the quantity of grain used and the production of barley malt are given in the following table:—

BARLEY MALT : GRAIN USED AND MALT PRODUCED, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Grain used .. '000 bus. <i>a</i>	7,629	7,803	7,855	8,494	8,206
Malt produced .. '000 bus. <i>b</i>	7,517	7,782	7,895	8,197	8,108

(a) 50 lb. per bushel.

(b) 40 lb. per bushel.

(ii) *Exports.* Since 1952-53, the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports amounting to 988,549 bushels (value £947,845) and 1,225,139 bushels (value £1,167,631) were recorded in 1957-58 and 1958-59 respectively.

7. *World Production.*—In comparison with the barley production of other countries, that of Australia is extremely small. The main producers in 1959 were the United States of America, France and Canada. China is also normally a major producer, but details for 1959 are not available. Australian production in that year was slightly less than one per cent. of the world total.

According to preliminary estimates made by the United States Department of Agriculture, world production of barley in the year 1959 amounted to 3,240 million bushels harvested from 136.8 million acres, equivalent to a yield per acre of 23.7 bushels. This compared with the production of 3,305 million bushels in the previous year from 135.5 million acres, and a yield per acre of 24.4 bushels.

§ 8. Rice.

The principal rice-growing areas of the world are confined almost entirely to Asia although limited quantities are grown in other countries. In Australia, rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Area until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

The area sown in New South Wales in 1958-59 was 47,054 acres, compared with the record of 50,477 acres in 1956-57. Production was 6,618,933 bushels in 1958-59, the highest ever recorded.

A graph showing the production of rice appears on page 891.

The bulk of Australia's exports of rice in 1958-59 was shipped to Papua and New Guinea, the Pacific Islands, the United Kingdom and New Zealand.

Details relating to area, production and exports for the years 1954-55 to 1958-59, are shown in the following table:—

RICE : AREA, PRODUCTION AND EXPORTS, AUSTRALIA.(a)

Season.	No. of Holdings Growing Rice.(b)	Area.	Production (Paddy Rice).		Average Yield (Paddy) per Acre.	Exports.(d)	
			Quantity.	Gross Value. (c)		Un-cleaned.	Cleaned.
		Acres.	'000 Bushels. (e)	£'000.		Cwt.	Cwt.
1954-55	573	38,690	5,080	3,430	131.3	55,867	552,065
1955-56	620	41,182	4,725	3,406	114.7	179,297	678,929
1956-57	652	50,477	4,262	3,069	84.4	177,123	408,634
1957-58	743	46,774	5,658	4,045	121.0	211,426	430,928
1958-59	775	47,054	6,619	4,731	140.7	183,083	704,381

(a) Until recently rice-growing in Australia has been practically confined to New South Wales with very small acreages only being sown in Queensland and Western Australia. Production commenced in the Northern Territory in 1956-57 but details, which are confidential, are not included in the table.
 (b) Twenty acres or more in area. (c) Excludes the value of straw. (d) Imports into Australia are not recorded separately. (e) 42 lb. per bushel.

In 1956, the Commonwealth Government entered into an agreement for the development of large scale rice-growing in the Northern Territory. The agreement, which was made with a company financed by American and Australian interests, granted a 30 year lease over 750,000 acres of sub-coastal plains east of Darwin and provided for the development of 500,000 acres of land for rice-growing within 15 years. Production of rice has commenced, but, as only one company is involved, details of area and production are confidential and not available for publication.

§ 9. Sorghum for Grain.

The growing of sorghum for grain on an extensive scale is a recent development in Australia. No details of the area and production of this cereal are available prior to 1939-40, but the output was of little importance. The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum and so far, development has been restricted mainly to these areas, and more particularly to Queensland which accounts for the greater portion of the area sown. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for the feeding of livestock. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). Particulars of the area and production of sorghum grown for grain are given in the following table.

GRAIN SORGHUM : AREA, PRODUCTION AND YIELD PER ACRE, AUSTRALIA.

Season.	Area.			Production.(a)			Yield per Acre.(a)		
	N.S.W.	Q'land.	Total.	N.S.W.	Q'land.	Total.	N.S.W.	Q'land.	Total.
	Acres.	Acres.	(b)	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	(b)
1954-55	13,069	202,532	215,688	272,604	5,082,762	5,356,335	20.9	25.1	24.8
1955-56	23,697	155,527	179,298	662,973	3,960,195	4,624,273	28.0	25.5	25.8
1956-57	34,585	171,705	206,659	671,331	4,243,227	4,919,247	19.4	24.7	23.8
1957-58	47,017	166,979	214,442	521,325	3,885,567	4,407,500	11.1	23.3	20.6
1958-59	41,899	210,371	252,419	943,359	6,365,880	7,309,645	22.5	30.3	29.0

(a) 60 lb. per bushel.

(b) Includes small areas sown and quantities produced in other States.

§ 10. Potatoes.

1. **Area, Production and Yield per Acre.**—Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958–59, Tasmania came next in order of acreage sown, although the production exceeded that of Victoria in some of the war years. In 1958–59, New South Wales, which had previously occupied third position, supplanted Tasmania as the second most important State in area sown. Tasmanian production, however, was still slightly larger than that in New South Wales. The areas sown in these three States accounted for 76 per cent. of the total for Australia in 1958–59.

The area sown, production and yield per acre of potatoes in each State during the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown hereunder:—

POTATOES : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
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AREA (ACRES).

1954–55 ..	13,897	44,075	9,621	6,037	7,563	26,209	5	71	107,478
1955–56 ..	13,270	37,020	10,202	5,373	6,826	20,842	..	74	93,607
1956–57 ..	14,959	39,706	12,925	5,677	8,558	19,125	..	100	101,050
1957–58 ..	17,326	49,846	14,400	6,260	8,322	21,696	4	92	117,946
Average, 1948–49 to 1957–58 ..	17,296	46,727	11,323	6,665	7,432	28,727	..	108	118,278
1958–59 ..	17,482	46,122	11,614	6,168	7,051	16,186	..	90	104,713

PRODUCTION (TONS).

1954–55 ..	47,700	206,577	30,651	38,362	43,565	101,000	4	330	468,189
1955–56 ..	44,162	163,239	37,561	36,460	42,079	77,930	..	439	401,870
1956–57 ..	54,459	227,307	49,499	43,665	53,741	89,700	2	601	518,974
1957–58 ..	66,689	251,159	56,468	49,965	49,229	101,500	3	420	575,433
Average, 1948–49 to 1957–58 ..	54,797	184,692	35,779	41,127	46,787	115,723	(a)	584	479,489
1958–59 ..	84,450	259,346	46,999	50,587	47,103	85,900	..	152	574,537

YIELD PER ACRE (TONS).

1954–55 ..	3.43	4.69	3.19	6.35	5.76	3.85	0.80	4.65	4.36
1955–56 ..	3.33	4.41	3.68	6.79	6.16	3.74	..	5.93	4.29
1956–57 ..	3.64	5.73	3.83	7.69	6.28	4.69	..	6.01	5.14
1957–58 ..	3.85	5.04	3.92	7.98	5.92	4.68	0.75	4.57	4.88
Average 1948–49 to 1957–58 ..	3.17	3.95	3.16	6.17	6.30	4.03	(a)	5.41	4.05
1958–59 ..	4.83	5.62	4.05	8.20	6.68	5.31	..	1.69	5.49

(a) Not available.

After the outbreak of war in the Pacific in December, 1941, the area sown to potatoes increased rapidly and reached a maximum of 241,803 acres in 1944–45. Areas sown in subsequent seasons were considerably less, however, and the figure for 1958–59 was 104,713 acres.

The average yield in Australia for 1958–59 was a record of 5.49 tons per acre compared with the previous highest yield of 5.14 tons in 1956–57.

2. **Gross Value of Potato Crop.**—The estimated gross value of the potato crop of each State for the 1958–59 season and the value per acre are shown in the following table:—

POTATOES : VALUE OF CROP, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	2,222	5,040	1,198	1,201	1,565	1,880	3	13,109
Value per acre £	127	109	103	195	222	116	33	125

3. **Consumption.**—The annual consumption of potatoes in Australia during each of the three years 1956–57 to 1958–59 amounted to 458,600 tons, 514,400 tons and 516,100 tons respectively, or 107.7 lb., 118.2 lb. and 116.2 lb. respectively per head of population. These figures exclude the quantities used for seed, which averaged about 54,000 tons annually over this period. New South Wales, Queensland and, in some seasons, South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria, which have a surplus.

4. **Marketing.**—Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948 with the completion of sales of the 1947–48 crop.

Potato Marketing Boards were subsequently established in all States under separate State legislation. The life of the Queensland Board was not extended when its term ended in 1954, and the New South Wales Board was voted out by growers in 1956. As the Victorian Board does not acquire the State crop, potato marketing is now conducted chiefly on an open marketing system.

5. **Exports.**—Prior to the 1939–45 War, small quantities of potatoes were exported, principally to the Pacific Islands and Papua. After the war, the export trade expanded considerably. It reached a peak of 37,570 tons in 1952–53 but then fell sharply. Details showing exports for the years 1954–55 to 1958–59 are given in the following table:—

POTATOES : EXPORTS, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Quantity tons	3,473	3,478	3,958	7,410	4,489
Value £'000	109	225	263	227	152

Imports of potatoes into Australia are not recorded separately.

§ 11. Onions.

1. **Area, Production and Yield per Acre.**—Australia's supply of onions comes chiefly from Victoria, which accounted for 45 per cent. of the total area and 52 per cent. of the quantity produced in 1958–59. Queensland was next with 39 per cent. of the area and 25 per cent. of the production, leaving a balance of 16 per cent. of area and 23 per cent. of production distributed among the remaining four States. The Victorian crop consists almost entirely of brown onions of good keeping qualities, and the bulk of the crop is grown in a small section of the Western Division of the State, where soil conditions have been found to be particularly suitable for onion growing on a commercial scale. Details of the area, production and yield per acre are given in the following table for the years 1954–55 to 1958–59 together with averages for the ten-year period ended 1957–58.

ONIONS : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
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AREA (ACRES).

1954-55	285	3,970	2,807	512	390	21	9	7,994
1955-56	318	3,337	2,480	524	321	22	8	7,010
1956-57	532	4,503	3,258	608	428	28	5	9,362
1957-58	498	5,368	4,296	694	415	37	9	11,317
Average, 1948-49 to								
1957-58	342	4,323	2,828	542	393	30	6	8,464
1958-59	444	3,971	3,412	602	397	21	13	8,860

PRODUCTION (TONS).

1954-55	1,340	26,091	12,243	4,790	4,322	107	71	48,964
1955-56	1,759	20,299	9,157	4,911	3,547	140	42	39,855
1956-57	2,669	26,811	14,279	5,611	4,606	114	32	54,122
1957-58	2,343	40,678	18,653	5,945	4,149	186	76	72,030
Average, 1948-49 to								
1957-58	1,510	26,880	12,045	5,285	4,209	147	40	50,116
1958-59	2,476	28,456	13,584	5,318	5,043	97	106	55,080

YIELD PER ACRE (TONS).

1954-55	4.70	6.57	4.36	9.36	11.08	5.10	7.89	6.13
1955-56	5.53	6.08	3.69	9.37	11.05	6.36	5.25	5.69
1956-57	5.02	5.95	4.38	9.23	10.76	4.07	6.40	5.78
1957-58	4.70	7.58	4.34	8.57	10.00	5.03	8.44	6.36
Average, 1948-49 to								
1957-58	4.42	6.22	4.26	9.75	10.71	4.90	6.67	5.92
1958-59	5.58	7.17	3.98	8.83	12.70	4.62	8.15	6.22

2. **Gross Value of Onion Crop.**—The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1958-59 season:—

ONIONS : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	84	1,063	387	215	163	4	4	1,920
Value per acre £	189	268	113	357	411	190	307	217

3. **Consumption.**—The annual consumption of onions in Australia averaged 60,300 tons or 13.8 lb. per head of population during the three years ended 1958-59. These figures exclude an estimated wastage which averaged 3,000 tons per annum.

4. **Exports.**—Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1958-59, exports amounted to

1,998 tons, valued at £61,793, and were shipped mainly to Singapore, New Caledonia, and Australian Territories. The quantity of exports in 1957-58 was 4,562 tons, valued at £134,517. Imports of onions into Australia are not recorded separately.

§ 12. Hay.

1. *General.*—(i) *Area and Production.* As already stated, the chief crop in Australia in terms of area, is wheat grown for grain. Up to and including 1946-47, hay was next, but in recent years it has dropped in relative importance. In 1958-59, the areas sown to green fodder and oats for grain were larger than that sown to hay.

In 1958-59, the hay area represented 12.0 per cent. of the total area cropped. A graph showing the area sown to hay crops since 1900-01 appears on page 889. In most European countries, the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of oats, lucerne and wheat. The area, production and yield per acre of hay of all kinds in the several States during the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown below:—

HAY : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	524	739	76	257	289	96	3	1,984
1955-56 ..	562	879	63	326	269	137	5	2,241
1956-57 ..	367	782	45	299	242	123	3	1,861
1957-58 ..	554	871	69	291	339	110	3	2,237
Average, 1948-49 to 1957-58 ..	413	723	59	269	238	108	3	1,813
1958-59 ..	747	1,282	78	419	333	154	5	3,018
PRODUCTION ('000 TONS).								
1954-55 ..	680	1,208	171	330	305	158	4	2,856
1955-56 ..	846	1,526	137	461	384	261	10	3,625
1956-57 ..	538	1,423	96	453	289	238	6	3,043
1957-58 ..	535	1,413	122	304	386	205	4	2,969
Average, 1948-49 to 1957-58 ..	557	1,205	122	367	293	194	5	2,743
1958-59 ..	1,183	2,299	169	672	455	302	10	5,090
YIELD PER ACRE (TONS).								
1954-55 ..	1.30	1.63	2.25	1.28	1.05	1.64	1.33	1.44
1955-56 ..	1.51	1.74	2.17	1.41	1.42	1.91	2.08	1.62
1956-57 ..	1.47	1.82	2.12	1.52	1.19	1.94	1.81	1.63
1957-58 ..	0.96	1.62	1.77	1.05	1.14	1.86	1.39	1.33
Average, 1948-49 to 1957-58 ..	1.35	1.67	2.05	1.36	1.23	1.80	1.66	1.51
1958-59 ..	1.58	1.79	2.17	1.60	1.37	1.96	1.98	1.69

For a number of reasons, particularly the variations in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area of hay is apt to fluctuate considerably. The area under hay in Australia during the season 1915-16, 3,598,000 acres, was the largest on record, while the area recorded in 1958-59, 3,018,000 acres, was the largest since 1938-39.

A graph showing the production of hay appears on page 891.

(ii) *Varieties Grown.* Information regarding areas cut for hay in 1958-59 is given in the following table.

HAY : AREA UNDER VARIOUS KINDS GROWN, 1958-59.
(Acres.)

State.	Wheaten.	Oaten.	Lucerne.	Other.	Total.
New South Wales	102,173	117,298	230,912	296,482	746,865
Victoria	32,584	261,853	74,109	913,594	1,282,140
Queensland	9,080	4,337	57,914	6,491	77,822
South Australia	50,283	162,762	31,877	174,644	419,566
Western Australia	47,314	187,730	818	96,751	332,613
Tasmania	2,011	15,689	1,236	134,886	153,822
Northern Territory .. ..	..	..	..	121	121
Australian Capital Territory ..	158	1,942	1,464	1,564	5,128
Australia	243,603	751,611	398,330	1,624,533	3,018,077

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1958-59 were 25 per cent. for oaten, 13 per cent. for lucerne, 8 per cent. for wheaten, and 54 per cent. for other hay. In that year, oaten hay predominated in Western Australia, lucerne in Queensland, and meadow and grass hay in the remaining States.

2. **Value of Hay Crop.**—The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1958-59 season:—

HAY : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	11,599	19,360	2,803	5,792	4,424	2,362	162	(a)46,503
Value per acre £	15.5	15.1	35.9	13.8	13.2	15.3	32.4	15.4

(a) Includes £1,000 in the Northern Territory.

3. **Farm Stocks of Hay.**—Details of stocks of hay held on farms are now collected at the annual census of farm production. Particulars of stocks so held at 31st March in each year 1955 to 1959 are given in the table below.

STOCKS OF HAY HELD ON FARMS.
(Tons.)

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1955 ..	809,263	1,553,289	156,115	447,102	207,664	145,112	3,269	3,321,814
1956 ..	830,619	1,870,214	149,187	474,456	306,586	270,138	7,778	3,908,978
1957 ..	775,464	2,008,678	156,599	555,681	222,941	296,257	7,617	4,023,237
1958 ..	553,691	1,643,876	89,897	384,143	211,069	256,199	3,492	3,142,367
1959 ..	1,463,334	2,464,050	166,657	679,003	290,988	311,825	9,323	5,385,180

4. **Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for overseas trade, and consequently does not figure largely amongst the exports of Australia. During 1958-59, exports amounted to 14,711 tons, valued at £282,549. Imports of hay into Australia are not recorded separately.

§ 13. Green Fodder.

1. **Nature and Extent.**—Considerable areas are devoted to the growing of green fodder, mainly in connexion with the dairying industry. In the 1958-59 season, green fodder ranked third after wheat and oats in area of crops throughout Australia. The areas recorded in respect of green fodder include areas of crops cut for feeding to live-stock as green fodder, or ensilage, together with areas fed off to stock as green forage. Included with the latter

are areas which may have been sown with the intention of harvesting for grain, but which, due to adverse seasonal conditions, showed no promise of producing grain or even hay and were fed off to live-stock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye and sugar-cane are also used in this way. In 1958-59, the area under green fodder (3,040,544 acres) consisted of oats (1,572,197 acres), lucerne (764,797 acres), wheat (117,019 acres), sorghum (98,283 acres), barley (128,571 acres), maize (37,988 acres), rye (23,100 acres), sugar-cane (1,294 acres) and other crops (297,295 acres). Particulars concerning the area of green fodder in the several States during each of the years 1954-55 to 1958-59 are given in the following table.

GREEN FODDER : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55 ..	934,395	77,135	649,607	360,359	639,086	70,945	32	988	2,732,547
1955-56 ..	826,789	75,815	689,469	334,957	666,398	54,401	..	970	2,648,799
1956-57 ..	813,642	66,490	640,316	363,562	752,072	48,435	2	772	2,685,291
1957-58 ..	993,039	85,095	714,048	421,242	770,739	54,094	4	1,032	3,039,293
1958-59 ..	1,238,314	70,289	638,667	261,813	769,199	61,322	273	667	3,040,544

2. Value of Green Fodder Crops.—The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately £8,600,000 for the 1957-58 season and £6,800,000 for the 1958-59 season.

§ 14. Sugar-cane.

1. Area.—Sugar-cane growing appears to have commenced in Australia in or about 1862, and is confined to New South Wales and Queensland. A brief outline of the development of the industry was included in earlier issues of the Official Year Book (see No. 38, page 985). The area of sugar-cane in Australia for the seasons 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown in the following table. In 1958-59, the total area of sugar-cane (excluding areas cut for green fodder) was 510,512 acres, the highest ever recorded.

SUGAR-CANE : AREA.(a)
(Acres.)

Season.	New South Wales.			Queensland.			Australia.			
	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Total.
1954-55 ..	6,566	8,078	474	367,640	107,512	11,589	374,206	115,590	12,063	501,859
1955-56 ..	7,522	8,728	670	365,252	104,782	12,111	372,774	113,510	12,781	499,065
1956-57 ..	9,182	9,419	522	360,932	106,734	12,450	370,114	116,153	12,972	499,239
1957-58 ..	10,734	9,241	720	364,985	107,424	12,946	375,719	116,665	13,666	506,050
Average, 1948-49 to 1957-58 ..	8,046	8,087	417	313,406	108,305	12,082	321,452	116,392	12,499	450,343
1958-59 ..	13,368	9,727	616	356,210	118,200	12,391	369,578	127,927	13,007	510,512

(a) Excludes areas cut for green fodder.

2. Productive and Unproductive Cane.—The areas shown in the preceding table do not include the small acreage cut for green fodder, which in 1958-59 amounted to 1,294 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

3. Production of Cane and Sugar.—For Queensland, statistics of the production of sugar-cane are not available for seasons prior to 1897-98. In that season, the total for Australia was 1,073,883 tons, compared with the record of 10,212,593 tons in the 1958-59 season. The previous highest production was 10,086,517 tons in 1954-55.

The average production during the ten seasons ended 1957-58 was 7,942,408 tons of cane and 1,075,012 tons of raw sugar. Particulars of the total production of cane and sugar for the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are as follows:—

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.
(Tons.)

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.(a)	Cane.	Sugar.(a)	Cane.	Sugar.(a)
1954-55	222,213	26,301	9,864,304	1,301,245	10,086,517	1,327,546
1955-56	284,539	36,028	8,616,163	1,135,685	8,900,702	1,171,713
1956-57	294,087	35,918	8,978,081	1,171,879	9,272,168	1,207,797
1957-58	303,086	36,854	8,945,617	1,256,271	9,248,703	1,293,125
Average, 1948-49 to						
1957-58	277,884	33,940	7,664,524	1,041,072	7,942,408	1,075,012
1958-59	471,798	58,870	9,740,795	1,353,543	10,212,593	1,412,413

(a) Raw sugar at 94 net titre.

The production of raw sugar in Australia in 1958-59 amounted to 1,412,413 tons (a record) manufactured from 10,212,593 tons of cane, compared with the previous highest production of 1,327,546 tons in 1954-55.

Official annual data are not available regarding the total number of persons engaged in the sugar industry in New South Wales and Queensland. The number of separate holdings growing 5 acres or more of cane was 7,375 in 1958-59.

According to data obtained from the population census of 30th June, 1954, the number of persons engaged in the sugar-cane industry in New South Wales and Queensland comprised 20,185 males and 431 females, a total of 20,616 persons, of whom 4,245 were employers and 5,118 were self-employed.

4. Average Production of Cane Sugar.—Owing to climatic variations, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be made accurately except on an annual basis. In New South Wales, the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods the average annual yields of cane per productive acre during the ten years ended 1957-58 were 34.54 tons for New South Wales, and 24.45 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 5.33 tons and 3.32 tons respectively. The average yields of cane and sugar per acre crushed for Australia for the ten years ended 1957-58 were 24.71 tons and 3.34 tons respectively.

SUGAR-CANE AND SUGAR : YIELD PER ACRE.
(Tons.)

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
1954-55	33.84	4.01	8.45	26.83	3.54	7.58	26.95	3.55	7.60
1955-56	37.83	4.79	7.90	23.59	3.11	7.59	23.88	3.14	7.60
1956-57	32.03	3.91	8.19	24.87	3.25	7.66	25.05	3.26	7.68
1957-58	28.24	3.43	8.22	24.51	3.44	7.12	24.62	3.44	7.15
Average, 1948-49 to									
1957-58	34.54	5.33	8.19	24.45	3.32	7.36	24.71	3.34	7.39
1958-59	35.29	4.40	8.01	27.35	3.80	7.20	27.63	3.82	7.23

5. **Quality of Cane.**—The quantity of cane required to produce a ton of sugar varies with the variety planted, the district, and the season. For the ten years ended 1957–58, it required on the average 7.39 tons of cane to produce one ton of sugar, or 13.5 per cent. of its total weight. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods, the sugar content of the cane has been increased considerably since the turn of the century, when over 9 tons of cane were required to produce 1 ton of sugar. It is believed that the sugar content obtained in Australia is the highest anywhere in the world.

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

6. **Production and Utilization.**—Details of the production and utilization of raw sugar for the years 1954–55 to 1958–59 are shown below. It should be noted that the details of sugar production refer to the annual periods shown, without regard to the season in which the sugar was produced. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

RAW SUGAR : PRODUCTION AND UTILIZATION, AUSTRALIA.

Year.	Changes in Stocks.	Pro- duction.	Exports. (a)	Miscel- laneous Uses.(b)	Consumption in Australia.(a)	
					Total.(c)	Per Head. (c)
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1954–55	–27.1	1218.1	761.2	21.7	462.3	114.0
1955–56	+40.5	1158.0	617.0	21.7	478.8	115.7
1956–57	+21.1	1217.7	698.7	20.0	477.9	112.3
1957–58	–23.3	1222.2	733.8	21.1	490.6	112.8
1958–59	+ 3.7	1353.4	830.8	20.0	498.9	112.3

(a) Includes sugar content of manufactured products.
in refining.

(c) In terms of refined sugar.

(b) Includes industrial uses and losses

7. **Consumption in Factories.**—The quantity of sugar used in factories in 1957–58 amounted to 278,764 tons compared with 271,688 tons in 1956–57 and 266,065 tons in 1955–56. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1957–58, consumption by factories engaged in the production of jams, jellies and preserved fruit (including condiments, pickles, etc.) amounted to 77,052 tons, by those producing confectionery, ice cream, etc. to 55,207 tons, by breweries to 43,738 tons and by factories producing aerated waters, cordials, etc. to 42,323 tons.

8. **Control of Cane Production in Queensland.**—Agreements between the Commonwealth and Queensland Governments have fixed the wholesale price of sugar and sugar products from time to time. Details of prices are shown in para. 14 of this section (see page 929).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills.

Sugar production barely met local requirements in 1923 but increased rapidly until 1925 when approximately 44 per cent. of the production was exported. Steps were taken by the Government to restrict planting of new areas and production was fairly stable until 1929. In that year, the pool was reorganized and mills received the full pool price for sugar up to the amount of their previous maximum production, further output being acquired at export prices.

Between 1929 and 1939, production rose by more than 70 per cent. despite the restrictions above-mentioned and the fact that export prices were generally less than half the pool price.

In 1939, following the International Sugar Agreement, which limited exports, the Queensland Government limited the pool (mill peaks) to 737,000 tons in respect of Queensland production. Mill quotas were allotted on the understanding that mills would allot

quotas to individual growers. Mill peaks have been raised since 1939, following the negotiation of the Commonwealth Countries Sugar Marketing Agreement of 1949, which allowed the Queensland Government to initiate a planned expansion of the industry. In 1958, they were 1,207,400 tons and in 1959, 1,213,000 tons.

9. **Sugar Agreement in Australia—Embargo on Imports, etc.**—Reference was made in Official Year Book No. 37, pages 940–41, to the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement operates for a five year period from 1st September, 1956, to 31st August, 1961.

10. **International Sugar Agreement.**—The International Sugar Agreement of 1937 was superseded by the International Sugar Agreement of 1953 which came into force on 1st January, 1954. Details of the 1937 Agreement were given in Official Year Book No. 40, pages 881 and 882, and previous issues.

The 1953 agreement, which was amended by protocol from 1st January, 1957, was for the five year period ended 31st December, 1958.

In October, 1958, a new agreement was negotiated at a conference held in Geneva under the auspices of the United Nations. The new agreement, which follows the lines of the 1953 agreement, is for five years commencing 1st January, 1959, with provision for a review during the third year. It is designed to assure supplies of sugar to importing countries and markets for sugar to exporting countries at equitable and stable prices, to facilitate a steady increase in the consumption of sugar and a corresponding increase in the supply of sugar, and, in general, to further international co-operation in connexion with world sugar problems. Basic export quotas of exporting countries are established and provision is made for adjustment of quotas according to fluctuations in the world sugar price. A number of price levels are stipulated at which the International Sugar Council may or must take action. The Council has considerable discretion to adjust quotas during the quota year.

Under the 1953 agreement, the British Commonwealth, as a whole, was granted an export quota of 2,375,000 tons rising to 2,500,000 tons in 1958. Under the 1958 agreement, the quota remains at 2,500,000 tons for 1959 but is increased by 75,000 tons to 2,575,000 tons in 1960 and 1961. This quota is not subject to the fluctuations mentioned above. The allocation of the total quota among exporting members of the British Commonwealth is a matter for internal arrangement by those countries and territories themselves. Australia's quota for 1959 was approximately 631,000 tons and will increase to about 650,000 tons in 1960 and 1961.

Details of the marketing arrangements for Australian sugar are given in paragraph 15 below.

11. **Net Return for Sugar Crop.**—Details of the disposal of the crop, net value of exports and the average price realized during each of the years 1954–55 to 1958–59 are shown in the following table:—

RAW SUGAR(a): NET RETURNS, AUSTRALIA.

Year.			Proportion Exported. (b)	Net Value of Exports per Ton. (b)	Average Price per Ton for Whole Crop.	Estimated Value of Crop.
			Per cent.	£ s. d.	£ s. d.	£'000.
1954–55	..	..	59.11	37 8 0	41 6 11	53,984
1955–56	..	..	53.46	38 11 4	42 9 0	53,244
1956–57	..	..	56.01	41 6 5	46 14 3	57,686
1957–58	..	..	57.44	45 16 8	49 7 6	64,194
1958–59	..	..	60.53	39 8 2	45 9 11	64,849

(a) 94 net titre.

(b) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1958-59 amounted to £615,833. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively.

12. **Exports of Sugar.**—Particulars of the exports of cane sugar (raw and refined) for each year from 1954-55 to 1958-59 are as follows:—

SUGAR : EXPORTS, AUSTRALIA.

Particulars.			1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity	tons		737,184	592,229	675,282	707,806	802,971
Value	£'000		31,148	24,723	28,780	34,996	32,163

13. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the amounts used for distilling, fuel, manure and other purposes will be found in Chapter VI.—Manufacturing Industry.

Other by-products include industrial chemicals and building boards. These boards are made from the residue of crushed fibre after removal of the sugar content from sugar-cane and possess high insulating and sound-absorbing properties which make them particularly suitable for use in walls and ceilings.

14. **Sugar Prices.**—The prices of sugar in Australia from 1952 to 1958 in the case of raw sugar; and from 1952 to 1961 in the case of refined sugar (as determined under the Sugar Agreement in Australia—see para. 9 above) are shown in the following table:—

SUGAR : PRICES IN AUSTRALIA.

Year.	Raw Sugar, 94 Net Titre.			Refined Sugar.		
	Average Return per Ton Received by Millers and Growers for—			Date of Determination.	Wholesale Price per Ton.	Retail Price per lb.
	Home Consumption.	Exports.(a)	Whole Crop. (a)			
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	d.
1952 ..	44 3 0	41 2 0	42 12 9	24.3.52 to 12.10.52	65 12 10	8
1953 ..	47 18 6	38 13 9	42 10 8	13.10.52 to 13.5.56	73 16 11	9
1954 ..	47 1 0	37 8 0	41 6 11	14.5.56 to 31.8.61	82 1 0	10
1955 ..	46 18 0	38 11 6	42 9 0			
1956 ..	53 11 6	41 6 5	46 14 3			
1957 ..	54 3 0	45 16 8	49 7 6			
1958 ..	54 15 0	39 8 2	45 9 11			

(a) Including "Excess" Sugar.

15. **Marketing Arrangements.**—From 1939 to 1952, the British Ministry of Food purchased Australia's surplus raw sugar at prices negotiated annually and varying from £stg.11 5s. in 1939 to £stg.38 10s. a ton in 1952 including tariff preference (for prices in other years see earlier issues of the Year Book).

On 1st January, 1953, the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1965, provides for Australia to export a maximum of 600,000 tons per annum, subject to annual review. For 1959, the Australian quota was approximately 631,000 tons. The United Kingdom agrees to take 300,000 tons at an annually negotiated price, the balance being sold at world prices, plus tariff preferences. The negotiated prices for 1958 and 1959 were £stg.43 16s. 8d. and £stg.45 2s. per ton respectively.

The Sugar Bill introduced into the House of Commons on 5th July, 1955, provided for the reversion of dealings in sugar in the United Kingdom to a trader to trader basis as

from 1st January, 1957. However, under the Bill, a Sugar Board was created which is responsible for the purchase of the negotiated price sugar which the United Kingdom Government has contracted to take under the British Commonwealth Sugar Agreement.

16. Fruit Industry Sugar Concession Committee and Sugar Rebates.—The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

A rebate of £2 4s. per ton of refined sugar used in processing approved fruit products is paid to Australian manufacturers provided they buy the fresh fruit at prices not lower than those declared by the Committee as reasonable.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for Australian sugar than the price for which the cheapest imported sugar could be landed duty free in Australia.

Under the Sugar Agreement 1956–1961, the Queensland Government contributes to the fund £120,000 annually and also reimburses the Committee for the actual expenditure on export sugar rebates. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for scientific research for the purpose of increasing the yield per acre of Australian fruit.

17. Bulk Handling of Sugar.—The conversion of the Australian sugar industry to bulk handling and mechanized loading and unloading of raw sugar is well advanced. Within the next few years, 80 per cent. of raw sugar in Australia will be handled in bulk without being bagged at any stage.

Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958 and at Townsville in 1959; a terminal is also in the course of construction at Mourilyan.

Bulk unloading facilities are in operation, or in the course of construction, at all Australian refineries.

§ 15. Vineyards.

1. Progress of Cultivation.—(i) *Area of Vineyards.* Since the early days of Australian settlement, the expansion of the cultivation of vines has been most rapid in Victoria and South Australia, the area under vineyards in the 1958–59 season in these two States comprising 78 per cent. of the total area. The purposes for which grapes are grown in Australia are (a) for wine-making, (b) for table use and (c) for drying. The total area of vines in the several States during each of the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table:—

VINEYARDS : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Aust.(a)
1954–55	18,205	45,757	2,896	60,612	9,015	136,485
1955–56	18,099	44,817	2,916	59,862	9,107	134,801
1956–57	17,394	44,902	2,916	57,409	8,996	131,617
1957–58	16,984	44,767	2,821	57,439	9,023	131,034
Average, 1948–49 to 1957–58	17,428	45,356	2,951	60,129	9,288	135,152
1958–59—						
Wine	7,128	4,164	319	42,892	3,112	57,615
Table	2,572	2,212	2,722	235	1,499	9,240
Drying	7,552	38,425	..	13,622	4,270	63,869
Total	17,252	44,801	3,041	56,749	8,881	130,724

(a) Excludes particulars for Australian Capital Territory and Northern Territory.

NOTE.—There are no vineyards in Tasmania.

(ii) *Wine Production, Bounties, etc.* The total production of wine (beverage and distillation) in Australia has shown a marked increase in recent years, rising from 14.3 million gallons in 1938-39 to 32.5 million gallons in 1958-59. In the same period, consumption of beverage wine in Australia has increased from 4.5 million gallons (0.7 gallons per head of population) to 11.1 million gallons (1.14 gallons per head of population). For many years prior to the 1939-45 War, a bounty was paid on wine shipped overseas under the provisions of the Wine Export Bounty Act 1930, as amended from time to time. Details of the bounty, payment of which was discontinued in 1947, may be found in Official Year Book No. 39, page 992.

The quantity of wine produced in the several States during the 1954-55 to 1958-59 seasons, together with the averages for the ten-year period ended 1957-58, are shown in the following table:—

WINE : PRODUCTION.(a)
(’000 Gallons.)

Season.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Australia.
1954-55.. ..	2,271	1,612	61	19,208	812	23,964
1955-56.. ..	2,327	1,342	37	18,403	786	22,895
1956-57.. ..	3,412	2,369	38	24,038	886	30,743
1957-58.. ..	4,150	2,583	21	26,400	700	33,854
Average, 1948-49 to 1957-58 ..	4,062	2,464	42	21,704	721	28,993
1958-59.. ..	4,360	2,354	49	25,131	644	32,538

(a) Net factory and farm production of beverage and distillation wine excluding the liquid gallanage of spirits added in wine fortifying.

2. **Imports and Exports of Wine.**—(i) *Imports.* Imports for 1958-59 amounted to 51,812 gallons valued at £121,599 compared with 51,225 gallons valued at £115,519 in the previous year.

During 1958-59, Italy supplied 20,038 gallons valued at £25,404, France supplied 18,368 gallons valued at £64,612, and the Federal Republic of Germany supplied 5,268 gallons valued at £13,513. The bulk of the sparkling wines were obtained from France.

(ii) *Exports.* Exports in 1958-59 totalled 1,747,249 gallons, of which the United Kingdom received 1,332,848 gallons, New Zealand 40,095 gallons, Canada 280,655 gallons, and other countries 93,651 gallons.

Exports for the five years ended 1958-59 are shown in the following table:—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity (Gallons).			Value (£).		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
1954-55.. ..	5,570	1,258,503	1,264,073	19,670	797,767	817,437
1955-56.. ..	5,997	1,197,995	1,203,992	19,833	714,235	734,068
1956-57.. ..	6,701	1,743,648	1,750,349	23,737	1,108,314	1,132,051
1957-58.. ..	4,872	1,484,656	1,489,528	18,194	978,616	996,810
1958-59.. ..	5,203	1,742,046	1,747,249	10,989	1,141,036	1,152,025

3. **Oversea Marketing of Wine.**—(i) *The Wine Overseas Marketing Act 1929–1954.* This Act was introduced to place the oversea marketing of surplus wine on an orderly basis. The Australian Wine Board (formerly The Wine Overseas Marketing Board), consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board has a London agency which advises on marketing conditions.

During 1954, the Act was amended to enable the Board to engage in the sales promotion of wine in Australia in addition to overseas.

(ii) *The Wine Grapes Charges Act 1929–1957.* This Act provides for the imposition of a levy on all grapes used in Australia for the manufacture of wines or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

4. **Other Viticultural Products.**—(i) *Table Grapes.* Grapes for table use are grown in all States except Tasmania, but the area of this type is only about 7 per cent. of the productive area of vines. The quantities of table grapes produced during the season 1958–59 in each State are shown in § 3 of this chapter. (See p. 895.)

(ii) *Raisins and Currants.* The quantities of raisins (including sultanas and lexias) and currants dried during each of the seasons 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table. Production in 1958–59 was 87,256 tons, compared with 90,554 tons in 1957–58.

RAISINS(a) AND CURRANTS : PRODUCTION.

(Tons.)

Season.	N.S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
1954–55.. ..	7,873	663	49,368	4,675	12,287	3,654	60	2,172	69,588	11,164
1955–56.. ..	4,313	725	29,417	5,150	11,699	5,009	95	2,463	45,524	13,347
1956–57.. ..	9,380	585	50,085	3,954	9,716	3,941	148	2,048	69,329	10,528
1957–58.. ..	10,608	674	56,742	4,153	11,306	4,824	111	2,136	78,767	11,787
Average, 1948–49 to 1957–58 ..	7,104	772	44,252	5,403	10,854	5,207	254	2,308	62,464	13,690
1958–59.. ..	10,914	856	52,707	4,776	12,323	4,531	94	1,055	76,038	11,218

(a) Including sultanas and lexias.

5. **Production and Disposal of Dried Vine Fruit.**—As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export. Total production during the 1958–59 season amounted to 87,256 tons, while exports for the 12 months ended December, 1959, were 74,884 tons, leaving an estimated 12,372 tons available for Australian consumption. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

The following table shows the oversea exports of raisins and currants during each of the years 1954-55 to 1958-59:—

RAISINS AND CURRANTS(a) : EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£'000.	Tons.	£'000.	Tons.	£'000.
1954-55.. ..	59,934	6,720	8,373	917	68,307	7,637
1955-56.. ..	51,734	6,224	9,561	1,151	61,295	7,375
1956-57.. ..	38,496	5,377	6,521	831	45,017	6,208
1957-58.. ..	52,297	8,019	7,398	938	59,695	8,957
1958-59.. ..	68,245	11,215	7,585	1,051	75,830	12,266

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1958-59 being 38,956 tons, 18,861 tons and 6,092 tons respectively.

6. **Post-war Contracts.**—Agreements were negotiated between the Governments of the United Kingdom and Australia for the purchase of Australian dried vine fruits during the period 1946-1953. Up to and including 1951, the quantity of fruit to be purchased was limited but in 1952 and 1953 there was no restriction. In April, 1953, it was agreed to extend the contract for one year but in August, 1953, the United Kingdom Government abolished all controls and on 1st December of that year exports reverted to a trader to trader basis. The British Ministry of Food agreed, however, to subsidize returns from sales of fruit of the 1954 crop sold in the United Kingdom up to 31st May, 1955, if average returns were less than the level of prices agreed upon.

7. **Overseas Marketing of Dried Fruits.**—(i) *The Dried Fruits Export Control Act 1924-1953.* This Act was passed to organize overseas marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of growers representatives, members with commercial experience and experience in marketing dried fruits and a Government representative, controls the sale and distribution of dried fruit exports and recommends the conditions under which export licences are issued.

In conjunction with its London agency, the Board has improved dried fruit marketing overseas by its system of appraisalment, regulation of shipments and advertising.

(ii) *Dried Fruits Export Charges Act 1924-1929.* This Act provides for a levy on exports of dried fruits to defray costs and expenses incurred by the Board. Provision is made for exemption from the levy upon recommendation by the Board.

§ 16. Orchards and Fruit Gardens.

1. **Area.**—The largest area of orchards and fruit-gardens prior to the 1939-45 War was 281,899 acres which was attained in 1933-34. Since then, the acreage has varied but has not fallen below 260,000 acres. It reached 290,000 acres in 1947-48 but declined somewhat in subsequent years, rising again to the record level of 287,000 acres in 1958-59.

ORCHARDS AND FRUIT-GARDENS : AREA.

(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55 ..	91,124	66,091	42,517	30,507	21,475	23,687	102	122	275,625
1955-56 ..	93,482	65,214	41,253	32,998	21,943	23,795	104	118	278,907
1956-57 ..	87,920	63,319	39,561	33,998	22,040	22,994	94	113	270,039
1957-58 ..	88,170	66,221	40,856	35,295	22,186	23,013	81	93	275,915
1958-59 ..	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920

2. **Varieties of Crops.**—The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics, to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal varieties grown in Victoria are apples, peaches, pears, oranges, plums and apricots. In Queensland, pineapples, apples, bananas, oranges, mandarins, peaches and plums are the varieties most largely cultivated. In South Australia, in addition to apples, oranges, apricots, plums, peaches and pears, almonds and olives are grown extensively. In Western Australia, apples, oranges, pears, plums, peaches, lemons, apricots and figs are the chief varieties. In Tasmania, apples occupy over three-quarters of the fruit-growing area, but small fruits, such as currants, raspberries and gooseberries are grown extensively while the balance of the area is mainly taken up with pears, apricots and plums. The following table shows the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantities produced.

ORCHARDS AND FRUIT-GARDENS, 1958-59.

Fruit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AREA, BEARING AND NON-BEARING (ACRES).									
Apples ..	15,722	20,058	10,744	5,505	13,459	18,049	..	77	83,614
Apricots ..	2,016	3,917	360	4,622	388	799	..	1	12,103
Bananas ..	25,197	..	6,171	..	408	..	22	..	31,798
Cherries ..	2,113	1,633	8	581	41	47	..	..	4,423
Citrus—									
Oranges ..	25,466	5,466	3,501	9,926	4,064	..	30	..	48,453
Mandarins ..	1,952	219	1,525	242	271	..	1	..	4,210
Lemons and Limes ..	2,311	1,259	429	345	593	..	5	..	4,942
Other ..	529	286	76	397	136	..	4	..	1,428
Nuts ..	259	430	146	3,303	182	..	..	1	4,321
Peaches ..	6,994	11,360	1,609	4,377	818	55	..	2	25,215
Pears ..	3,155	14,710	612	1,936	999	1,598	..	4	23,014
Pineapples ..	542	..	14,264	..	..	..	17	..	14,823
Plums and Prunes ..	4,551	2,068	1,358	1,270	1,031	104	..	3	10,385
Small Fruits ..	16	1,181	281	113	13	2,481	..	..	4,085
Other Fruits ..	1,957	4,159	2,827	4,620	500	35	7	1	14,106
Total ..	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920

PRODUCTION.

Apples '000 bus.	1,863	2,970	649	1,022	1,550	4,983	..	7	13,044
Apricots " "	310	291	25	714	40	50	..	..	1,430
Bananas " "	3,918	..	515	..	71	..	..	..	4,504
Cherries " "	114	98	..	41	2	4	..	..	259
Citrus—									
Oranges " "	2,698	830	351	1,687	337	..	1	..	5,904
Mandarins " "	148	24	151	33	16	..	..	..	372
Lemons and Limes, " "	281	162	75	44	99	..	1	..	662
Other " "	157	67	21	98	20	..	1	..	364
Nuts " '000 lb.	99	239	30	1,715	41	..	4	..	2,128
Peaches '000 bus.	726	1,034	84	655	86	7	..	..	2,592
Pears " "	497	3,280	64	295	169	433	..	..	4,738
Pineapples " "	95	..	5,099	..	..	..	1	..	5,195
Plums and Prunes " "	371	158	56	109	86	22	..	..	802
Small Fruits " '000 cwt.	..	18	13	2	..	107	..	..	140

3. **Principal Fruit Crops.**—The area and production of the principal fruit crops and the gross value of production during the seasons 1954-55 to 1958-59 are shown hereunder.

PRINCIPAL FRUIT CROPS : AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION.

Season.	Apples.	Apricots.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums and Prunes.
AREA, BEARING AND NON-BEARING (ACRES).							
1954-55.. ..	79,971	13,106	30,480	57,703	24,079	21,247	11,477
1955-56.. ..	82,336	13,087	29,331	59,271	23,454	22,030	10,915
1956-57.. ..	81,965	12,493	26,981	57,189	22,020	21,499	10,679
1957-58.. ..	82,595	12,689	26,981	58,631	23,451	21,989	10,816
1958-59.. ..	83,614	12,103	31,798	59,033	25,215	23,014	10,385
PRODUCTION ('000 BUSHELS).							
1954-55.. ..	11,678	1,544	3,139	7,086	3,080	4,708	820
1955-56.. ..	13,464	1,383	4,736	8,212	2,582	4,206	842
1956-57.. ..	10,792	1,417	3,625	7,943	2,179	4,606	674
1957-58.. ..	14,703	1,575	3,360	7,575	2,967	5,307	828
1958-59.. ..	13,044	1,430	4,504	7,302	2,592	4,738	802
GROSS VALUE OF PRODUCTION. (£'000.)							
1954-55.. ..	13,969	2,010	7,350	8,639	3,606	4,628	1,220
1955-56.. ..	16,594	2,286	5,749	8,556	3,365	4,681	1,380
1956-57.. ..	15,188	2,731	7,288	8,367	3,724	5,483	1,398
1957-58.. ..	19,211	2,400	9,121	10,709	3,854	6,635	1,478
1958-59.. ..	16,539	2,054	8,588	10,873	3,194	4,916	1,479

4. **Production of Jams and Jellies and Preserved Fruit.**—In Australia, considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1958-59, output of jams, conserves, fruit spreads, etc. amounted to 75,040,000 lb. while output of preserved fruit amounted to 317,055,000 lb. Of the latter figure, pears accounted for 92,588,000 lb., peaches 78,523,000 lb. and pineapples 67,822,000 lb.

The recorded consumption of fruit in factories for all purposes, including that used for juice and cordial manufacture and for drying, was 238,713 tons in 1957-58.

5. **Consumption of Fruit and Fruit Products.**—Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1958-59 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

6. **Imports and Exports of Fruit.**—(i) *General.* The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates.

A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1958-59 amounted to £9,412,592 and £12,747,780 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable.

(ii) *Fresh Fruit.* Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1954-55 to 1958-59 are shown in the following table:—

FRESH AND FROZEN FRUIT : EXPORTS, AUSTRALIA.

Year.	Apples.		Pears.		Citrus.		Total.(a)	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.
1954-55 ..	4,265	5,444	1,407	2,183	525	783	6,283	8,771
1955-56 ..	5,023	6,513	1,012	1,470	585	869	6,689	9,138
1956-57 ..	3,969	5,582	1,020	1,731	613	926	5,670	8,585
1957-58 ..	5,892	9,076	1,448	2,755	572	882	7,961	13,062
1958-59 ..	4,948	6,625	1,100	1,783	415	664	6,559	9,413

(a) Total, including exports of all other fresh and frozen fruit.

(iii) *Dried Tree Fruit.* The quantity and value of oversea imports and exports of dried fruit, other than raisins and currants, for the years 1954–55 to 1958–59 are shown below. Normally, the bulk of the imports consists of dates obtained almost entirely from Iraq.

DRIED TREE FRUIT(a): IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.(b)		Exports.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.
1954–55	13,176	373	6,576	804
1955–56	8,627	204	3,681	428
1956–57	7,052	158	2,887	378
1957–58	8,683	209	1,366	186
1958–59	8,411	203	3,352	482

(a) Excludes raisins and currants referred to separately under Vineyards (see p. 932).
of dates and figs only.

(b) Imports

(iv) *Jams and Jellies.* Exports of jams and jellies reached large proportions immediately following the 1939–45 War and in 1946–47 amounted to 65,434,000 lb., compared with the average for the five years ended 1938–39 of 7,118,000 lb. Since 1949–50, when exports totalled 65,229,000 lb., there has been a marked decline and in 1958–59 exports amounted to only 7,748,450 lb., valued at £541,865. Imports of jams and jellies are negligible.

(v) *Preserved Fruit.* The total quantity of fruit preserved in liquid, or partly preserved in liquid or pulped, imported into Australia during 1958–59 was 1,032,196 lb. valued at £188,663. Large quantities of fruit preserved in liquid are normally exported from Australia, the quantity recorded in 1958–59 being 196,025,186 lb. valued at £12,950,271. Exports in 1958–59 were principally made up of pears (77,704,652 lb.), peaches (45,439,793 lb.), apricots (15,028,831 lb.) and pineapples (48,027,987 lb.). In addition the exports of pulped fruits during 1958–59 amounted to 2,146,777 lb. valued at £173,739.

7. Marketing of Apples and Pears.—(i) *Apple and Pear Organization Act 1938–1953.* This Act, which was passed by the Commonwealth Parliament at the request of the apple and pear industry, provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees and the Commonwealth Government. Oversea representatives may also be appointed by the Board.

The function of the Board is the organization and control of exports of fresh apples and pears and it has the power to regulate shipments, determine export quotas and allocate consignments from each State.

(ii) *Apple and Pear Export Charges Act 1938–1957.* This Act provides for an export levy to meet the expenses of the Board.

(iii) *Apple and Pear Acquisition.* Exports of apples and pears were seriously curtailed during the war and the 1940 to 1948 crops were acquired and marketed under National Security and Defence Regulations. Details of the acquisition scheme will be found on pages 1003 and 1004 of Official Year Book No. 38 and in earlier issues.

8. Oversea Marketing of Canned Fruit.—(i) *The Canned Fruits Export Control Act 1926–1959.* This legislation was introduced with the object of organizing the oversea marketing of canned fruit. The Australian Canned Fruits Board, comprising members representing the Commonwealth Government, canners of apricots, peaches, pears, pineapples and fruit salad, and a representative of the growers of canning apricots, peaches and pears, was appointed to organize the oversea marketing of canned fruit and also to recommend conditions under which export licences are issued.

The system of marketing adopted by the Board has resulted in the satisfactory disposal of the exportable surplus of canned fruits.

(ii) *The Canned Fruits Export Charges Act 1926–1956.* This Act provides for a levy on exports to meet the Board's expenses. Provision has been made for certain exemptions when recommended by the Board.

§ 17. Vegetables for Human Consumption.

1. **Area and Production of Fresh Vegetables.**—Details of the areas planted and production of individual kinds of vegetables, excluding potatoes and onions referred to in §§ 10 and 11 of this chapter, are shown below for the seasons 1956–57 to 1958–59.

FRESH VEGETABLES(a) FOR HUMAN CONSUMPTION: AUSTRALIA.†

Vegetable.	1956–57.		1957–58.		1958–59.	
	Area Sown.	Production.	Area Sown.	Production.	Area Sown.	Production.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Asparagus	4,098	4,601	3,788	5,300	3,620	4,702
Beans, French and Runner	18,000	26,064	17,517	23,217	17,457	25,012
Beans, Navy	999	273	1,728	266	1,855	371
Beetroot	2,264	13,917	2,102	13,967	1,976	13,385
Cabbages and Brussels						
Sprouts	7,413	77,938	6,471	69,475	6,308	70,363
Carrots	5,444	47,537	5,001	47,648	4,625	43,743
Cauliflowers	7,295	78,540	7,734	89,385	7,361	93,913
Celery(b)	648	8,509	653	9,949	669	10,265
Cucumbers(b)	1,538	5,255	1,616	5,822	1,711	6,441
Lettuces	4,393	16,114	4,595	17,017	4,745	19,254
Parsnips	1,619	12,631	1,530	12,426	1,342	11,349
Peas, Blue	8,325	5,090	7,323	3,860	2,571	1,342
Peas, Green	48,614	48,437	47,988	51,714	46,388	52,298
Tomatoes	19,908	146,800	17,096	119,964	16,382	118,819
Turnips, Swede and White	5,427	22,688	4,670	18,701	4,214	20,044
All Other	35,815	..	33,739	..	31,550	..
Total	171,800	..	163,551	..	152,774	..

(a) Excludes potatoes and onions.

(b) Incomplete, excludes New South Wales.

2. **Production of Canned and Dehydrated Vegetables.**—Total production of canned vegetables in 1958–59 amounted to 66,600,000 lb., which was considerably higher than pre-war production, but only about 56 per cent. of the peak war-time production of 119,149,000 lb. recorded in 1944–45. The principal canned vegetables produced in 1958–59 were green peas (including mint-pro peas), 24,517,000 lb., green beans 1,245,000 lb., baked beans (including pork and beans) 18,685,000 lb., tomatoes 779,000 lb., and asparagus 7,689,000 lb.

The production of dehydrated vegetables, which was initiated by the Commonwealth Government during the 1939–45 War, rose to a maximum of 22,000,000 lb. in 1945–46, but in 1957–58 it was only approximately 751,000 lb. Production of potato crisps, chips and flakes, which has increased substantially in recent years, amounted to 5,711,000 lb. in 1957–58.

3. **Imports and Exports of Vegetables.**—The quantity and value of oversea exports of pulse and fresh vegetables during 1958–59 were respectively:—pulse, 14,970 tons, £751,295; onions, 1,998 tons, £61,793; potatoes, 4,489 tons, £152,358; other vegetables, 1,640 tons, £194,974. Imports of pulse amounted to 2,489 tons, valued at £215,179, while imports of fresh vegetables in total were 500 tons, valued at £77,138.

In 1958–59, exports of vegetables preserved in liquid consisted of:—Asparagus, 547,353 lb. (£84,848); Beans (including baked), 67,563 lb. (£4,623); Peas, 346,832 lb. (£18,628); Tomatoes, 123,475 lb. (£6,120); Other Vegetables, 258,861 lb. (£33,134).

4. **Consumption of Vegetables.**—Details of the estimated consumption of vegetables for a series of years ending 1958–59 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

§ 18. Tobacco.

1. **States, Area and Production.**—Tobacco has been grown in Australia for a considerable number of years. As early as the season 1888–89, the area of this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria and 123 in Queensland. Thereafter, the industry fluctuated for many years reaching a peak in 1932–33 when 26,272

acres were planted. After the 1939-45 War the area fell to below 4,000 acres, but it has increased again largely as a result of the beneficial effect of improved varieties and techniques on average yields and of the protection to Australian growers given by the tariff (*see also* (vii) Tobacco Factories on page 939).

In 1958-59, the area planted was 15,151 acres which was 77 per cent. more than the average for the ten years ended 1957-58. The production of dried leaf in 1958-59 at 13,970,000 lb. was 110 per cent. more than the average for the ten years ended 1957-58.

In the following table, particulars of the area and production of tobacco are given by States for each of the seasons 1954-55 to 1958-59, together with averages for the ten-year period ended 1957-58:—

TOBACCO : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	W. Aust.	N.T.	Aust.
AREA (ACRES).						
1954-55	635	2,471	5,135	1,418	2	9,661
1955-56	893	2,876	6,301	1,235	1	11,306
1956-57	1,031	2,935	7,029	1,176	1	12,172
1957-58	1,193	3,252	7,493	1,266	..	13,204
Average, 1948-49 to 1957-58 ..	623	1,983	4,790	1,153	..	8,549
1958-59	1,543	4,248	7,916	1,444	..	15,151
PRODUCTION OF DRIED LEAF ('000 lb.).						
1954-55	618	868	4,332	1,003	1	6,822
1955-56	547	1,135	3,702	722	..	6,106
1956-57	805	2,741	4,344	819	..	8,709
1957-58	1,235	3,683	5,618	1,031	..	11,567
Average, 1948-49 to 1957-58 ..	571	1,581	3,642	874	..	6,668
1958-59	1,158	4,885	6,729	1,198	..	13,970

2. **The Tobacco Industry.**—(i) *Marketing.* In the early days, purchase of the leaf at the farms was the usual practice but towards the end of the 1930's the auction system was introduced by arrangement between the growers' associations and the manufacturers.

On 9th May, 1941, the Australian Tobacco Board was constituted under the National Security (Australian Tobacco Leaf) Regulations for the purpose of facilitating and regulating the marketing of Australian grown tobacco leaf. All leaf was under the control of the Board, the growers being paid on the valuation as appraised by the Board. The Board ceased to function on 24th September, 1948, and subsequent crops have been marketed at open auction in the respective States. Queensland has had its own Tobacco Leaf Marketing Board since 1948. Growers in New South Wales voluntarily submit their leaf to the Queensland Board for sale at auction. Leaf from Victoria is sold at auction in Melbourne for the Victoria Tobacco Growers' Association. In Western Australia, the leaf is sold in Perth for the Western Australian Tobacco Growers' Association (Inc.).

(ii) *Central Tobacco Advisory Committee.* The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems.

The Committee was reconstituted by the Agricultural Council during 1952-53 and its terms of reference are as follows:—

“To report annually to the Agricultural Council, through the Standing Committee on Agriculture and also to the Commonwealth Minister for Customs and Excise, through the Chairman of the Council, on the following:—

- (i) The percentage of Australian tobacco which should be incorporated in locally manufactured tobacco under Customs regulations, having regard to the anticipated volume of Australian production of usable leaf available for absorption by the manufacturing industry;
- (ii) The progress of the industry during the year with particular reference to—
 - (a) marketing problems encountered,
 - (b) a review of prices being paid to farmers in relation to quality of leaf,
 - (c) such other problems as may be retarding the progressive development of the industry, such as the volume of importation of manufactured tobacco and cigarettes.”

(iii) *Industry Inquiries.* The tobacco industry has been the subject of a number of investigations during the past 30 years. The Tariff Board inquired into the industry in 1923, 1926, 1931 and 1940 and reports were issued in respect of the last three inquiries.

(iv) *Commonwealth Grants.* Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30th June, 1953, are given in Official Year Book No. 40, pages 895, 896 and in previous issues.

(v) *Research and Investigations.* The Commonwealth Scientific and Industrial Research Organization has been investigating many fundamental problems connected with tobacco culture. One of the major achievements of this organization was the development in the mid-1930's of a technique to control blue mould in the seed bed. Investigations are now being made into the control of this disease in the field. State Departments of Agriculture are also carrying out investigations over a wide range of problems, being concerned mainly with variety trials, irrigation, disease and pest control, crop rotation and cultural practices. The New South Wales Department of Agriculture has recently developed a commercial blue mould resistant hybrid.

In 1955, the Central Tobacco Advisory Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at £168,000 of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. It was estimated that to maintain the programme would cost approximately £63,000 per annum, of which the Commonwealth Government contributes £21,000, tobacco growers £14,000 and tobacco manufacturers £28,000 per annum. A Tobacco Industry Trust Account was established to receive these contributions. This programme commenced in 1956.

During the first three years of the operation of the Trust Account, £464,689 was allocated to State and Commonwealth departments. The allocation for 1959-60 is £161,000.

(vi) *War Service Land Settlement.* Due to technical difficulties, tobacco growing under War Service Land Settlement has been considerably curtailed. Farms designed for tobacco growing in Western Australia have been converted to an alternative use or sold outside the scheme. Farms at Clare, Queensland, while still growing tobacco, are not proving as successful as anticipated. It appears that crops alternative to tobacco may play an increasingly important part in the future.

(vii) *Tobacco Factories.* Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages rose from 3 per cent. for cigarettes and 5 per cent. for tobacco in November, 1946, to 22 per cent. and 23½ per cent. respectively from 1st July, 1959. The percentages to apply from 1st July, 1960, when most of the 1959 tobacco crop will be used in manufacture, are 28½ per cent. and 24½ per cent. respectively. In 1958-59, the quantity of cured leaf used in tobacco factories in Australia amounted to 49.0 million lb. of which 8.8 million lb. was of local origin. The balance was imported, chiefly from the United States of America.

3. *Oversea Trade.*—Imports of tobacco and manufactures thereof into Australia during 1958-59 were valued at £14.5 million, including 38.7 million lb. of unmanufactured tobacco valued at £13.7 million. Exports of tobacco and manufactures thereof during 1958-59 were valued at £461,497.

§ 19. Hops.

Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1958-59 being 1,883 acres, of which 1,443 acres were in Tasmania, and 440 acres in Victoria. A small area was also under hops in Western Australia, but the details are not available for publication. The Tasmanian area, though still small, has increased during the present century, the total for 1901-2 being 599 acres. The cultivation of hops was much more extensive in Victoria some 70 years ago than at present, the area in 1883-84 being 1,758 acres.

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table, details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1954-55 to 1958-59. Exports of hops are not recorded separately, but are negligible.

HOPS : PRODUCTION AND DISPOSAL, AUSTRALIA.

Year.	Production.		Imports.	Net Available Supplies. (a)	Quantity used in Breweries
	Quantity.	Gross Value.			
	Cwt.	£'000.	Cwt.	Cwt.	Cwt.
1954-55	34,075	1,106	10,311	44,386	42,976
1955-56	34,374	1,102	16,880	51,254	43,638
1956-57	25,230	857	3,074	28,978	40,250
1957-58	32,710	1,137	4,502	37,212	39,370
1958-59	36,499	1,273	8,471	44,970	38,664

(a) Disregards movements in stocks.

The Tariff Board conducted an inquiry into the hop-growing industry and issued report on 12th June, 1945.

§ 20. Flax.

1. **Flax for Fibre.**—During the 1914-18 and 1939-45 Wars, there was an acute shortage of flax fibre and the expansion of production was encouraged by the Commonwealth Government, the area sown reaching a maximum of more than 61,000 acres in 1944-45.

In recent years the growing of flax for fibre has been confined to Victoria, South Australia and Western Australia. In Victoria and South Australia, production has been directed and controlled by the Flax Commission, which took over the Commonwealth flax undertakings from the Flax Production Committee on 1st November, 1954. In Western Australia, the industry is carried on by a Co-operative Company.

In November, 1957, the Government approved a three-year extension of bounty assistance to flax producers and decided that the Commonwealth should withdraw from flax fibre production.

One important factor which influenced the Government in making this decision was the view expressed by the defence authorities that the industry no longer has the same defence significance as it had when the Flax Commission was first established.

In accordance with the decision, growing of flax under contract to the Flax Commission did not take place in 1959, and all of the Commonwealth mills finished operating before the end of the year. As a result, Western Australia became the only producing State, and its mill at Boyup Brook was the only flax mill left in production.

It appears that many former growers of flax for fibre in Victoria have now switched to growing flax for linseed.

Details of the area under flax and the production of straw are given in the following table:—

FLAX FOR FIBRE : AREA AND PRODUCTION.

Season.	Victoria.	S. Aust.	W. Aust.	Australia.
AREA (ACRES).				
1954-55	5,878	1,314	464	7,656
1955-56	2,550	526	1,594	4,670
1956-57	2,196	1,864	1,757	5,817
1957-58	5,550	1,410	1,002	7,962
1958-59 .. .. .	..	..	2,015	2,015
PRODUCTION (TONS OF STRAW).				
1954-55	7,799	1,888	500	10,187
1955-56	4,637	1,150	1,875	7,662
1956-57	4,013	4,606	2,051	10,670
1957-58	9,923	3,077	1,246	14,246
1958-59 .. .. .	..	..	3,665	3,665

2. **Flax for Linseed.**—Prior to 1948–49, the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. Development of the industry proceeded rapidly until 1951–52 when 53,741 acres were sown. In 1952–53, there was a decline in the acreage and a further decline in 1953–54 when 6,343 acres only were sown. Since then, an increase to £70 per ton, f.o.r. ports, in the guaranteed price, which is notified to growers by the crushers early in each season, has led to an increase in the area sown to 19,403 acres in 1954–55, 90,102 acres in 1956–57 and 96,465 acres in 1957–58. In 1958–59, the area sown declined to 37,225 acres.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953 and their conclusions are contained in their Report on *Linseed and Linseed Products* dated 23rd October, 1953.

Details of the area and production of flax for linseed are shown in the following table for the seasons 1954–55 to 1958–59.

FLAX FOR LINSEED : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
AREA (ACRES).							
1954–55	1,826	1,829	15,569	171	..	8	19,403
1955–56	1,817	580	45,202	128	..	..	47,727
1956–57	2,404	1,143	86,265	290	..	..	90,102
1957–58	2,251	4,091	90,255	221	549	..	97,367
1958–59	4,622	8,817	22,839	703	244	..	37,225
PRODUCTION (TONS OF LINSEED).							
1954–55	355	358	4,705	28	..	2	5,448
1955–56	400	94	12,738	15	..	..	13,247
1956–57	622	306	17,644	76	..	..	18,648
1957–58	36	1,149	7,279	49	68	..	8,581
1958–59	1,196	2,769	6,510	151	42	..	10,668

§ 21. Peanuts.

The production in Australia of peanuts, or groundnuts, is mainly confined to Queensland, although small quantities are grown in New South Wales, Western Australia and the Northern Territory. Details of the area and production are given in the table below.

PEANUTS : AREA AND PRODUCTION, AUSTRALIA.

Season.	Area (Acres).				Production (Tons).			
	N.S.W.	Q'land.	N.T.	Aust.(a)	N.S.W.	Q'land.	N.T.	Aust.(a)
1954–55	769	37,971	780	39,520	346	14,001	135	14,482
1955–56	414	31,493	544	32,451	174	8,633	40	8,847
1956–57	419	25,017	208	25,644	234	8,676	17	8,927
1957–58	686	34,739	156	35,581	401	18,326	15	18,742
1958–59	867	59,279	211	60,357	581	31,084	121	31,786

(a) Excludes Western Australia for which details are not available for publication.

The gross value of the 1958–59 crop (excluding the small crop in Western Australia) was £3,520,000 which was approximately £1,276,000 more than in 1957–58.

Formerly, considerable quantities of peanut kernels were imported, chiefly from India, for the extraction of oil. These imports were suspended from 1946 to 1949, but have since been resumed on an increasing scale. Total supplies available for consumption in Australia in 1958–59 were 27,435 tons (shell equivalent), after allowing for an increase in stocks held by the Peanut Marketing Board of 9,350 tons. Supplies were made up of 33,721 tons from Australian production received into store by the Board and 3,064 tons imported.

§ 22. Cotton.

1. **General.**—The production of cotton in Australia has been, until recently, restricted to Queensland, where cultivation began in 1860. Cotton has been grown experimentally in some other States in recent years and the first commercial crop outside Queensland has been grown in Victoria in the 1959–60 season. Details of areas sown for years prior to 1930 and of Government financial assistance to growers up to 1940 appear in Official Year Book No. 39 and earlier issues.

Australia produces only a small part of its requirements of raw cotton, the balance in 1958–59 being obtained chiefly from the United States of America and Mexico. Efforts have been directed towards increasing production by an extension of area, the introduction of irrigation methods, and payment of bounties, but so far they have not met with much success. Production increased very considerably during the early years of the 1939–45 War, reaching a peak of 17,550,000 lb. unginned cotton in 1939–40, but has since fallen away. The expansion of the industries connected with the spinning and weaving of cotton is referred to in Chapter VI.—Manufacturing Industry.

The Raw Cotton Bounty Act 1940 provided an extension, until 31st December, 1946, of assistance previously granted by way of bounty. The Act was amended in August, 1946, to provide a guaranteed net average return to cotton-growers of 15d. per lb. of raw cotton for five years from 1st January, 1947. It was superseded by the Cotton Bounty Act 1951, which guaranteed a net average return of 9½d. per lb. of seed cotton for five years from 1st January, 1951. The 1951 Act was amended in 1952 to provide for a guaranteed return of 14d. per lb. of seed cotton for the 1953 crop, and for variation by regulation of the guaranteed return, in succeeding seasons, with a minimum of 9½d. per lb. The Act, as amended in 1952 and 1957, was extended in 1958 to cover production up to 31st December, 1963. The guaranteed return has remained at 14d. per lb. of seed cotton since the 1953 season.

2. **Area and Production.**—The area under cultivation and the production in Queensland for the years 1954 to 1958 are shown hereunder. Details of the production of ginned cotton are derived from published statistics of the Queensland Cotton Marketing Board.

COTTON: AREA AND PRODUCTION IN QUEENSLAND.

Season ended December—	Area Sown.	Production of Cotton.				Average Yield per Acre Sown.	
		Unginned.		Ginned.	Ginned— Equivalent in Bales. (a)	Unginned.	Ginned.
		Quantity.	Gross Value.				
		'000 lb.	£'000.	'000 lb.	Bales.	lb.	lb.
1954	8,377	3,597	208	1,365	2,819	429	163
1955	13,290	5,359	307	2,164	4,386	403	163
1956	11,338	3,809	224	1,460	3,046	336	129
1957	10,364	3,390	213	1,341	2,845	327	129
1958	10,493	4,004	249	1,536	3,073	382	146

(a) Bales of approximately 500 lb.

3. **Consumption of Raw Cotton.**—The following table shows details of the availability and actual consumption of raw cotton in Australian factories, during the last five years:—

RAW COTTON: PRODUCTION, IMPORTS AND CONSUMPTION, AUSTRALIA.
(^{'000} lb.)

Year.	Production.	Imports.	Total.	Consumption of Raw Cotton.
1954–55	1,365	43,218	44,583	47,098
1955–56	2,164	37,614	39,778	45,262
1956–57	1,460	47,805	49,265	46,699
1957–58	1,341	42,578	43,919	49,054
1958–59	1,536	43,984	45,520	47,323

§ 23. Financial Assistance to Primary Producers.

NOTE.—See also Chapter XXI.—Public Finance, page 328.

Direct financial assistance to primary producers by the Commonwealth Government takes the form of bounties, subsidies and other financial assistance. Brief details of some of the more important payments are given below:—

(i) *Cotton Bounty.* The Cotton Bounty Act provides for payment of a bounty on seed cotton delivered by growers to processors. The present rate of bounty is designed to give growers an average return of 14d. per lb. The total payment in 1957–58 was £64,702 and in 1958–59 it was £139,455.

(ii) *Dairy Products Bounty.* Under the provisions of the Dairy Industry Act 1952, a subsidy was paid to dairymen to ensure them a return equal to the average cost of production for a specified quantity equal to local consumption plus twenty per cent. The Dairy Industry Act 1957 provided for continuation of the scheme for a further five years. A new feature, however, was that any subsidy made available under the scheme would be determined before the commencement of each season and would be on the basis of a fixed amount in any dairying year. In 1958–59, total payments amounted to £13,500,000, the same as in 1957–58.

(iii) *Flax Fibre Bounty.* From 1954 to 1958, a bounty was paid on scutched flax fibre produced from flax grown in Australia. In 1957, the Act was amended to provide for the calculation of the bounty payable on the basis of fibre sold, in lieu of fibre produced. In 1957–58, payments amounted to £62,348. Expenditure in 1958–59 was £93,167.

Other forms of financial assistance to primary producers include payments for Cattle Tick Control, the Dairy Industry Extension Grant, Flood, Drought and Bush Fire Relief, Food Production, Expansion of Agricultural Advisory Services and Assistance to the Tobacco Industry.

§ 24. Fertilizers.

1. *General.*—In the early days of settlement in Australia, scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. This practice is very much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture and the relevant Commonwealth authorities, such as the Bureau of Agricultural Economics and the Commonwealth Scientific and Industrial Research Organization, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now appreciated by farmers. The introduction of the modern seed-drill, acting also as a fertilizer-distributor, has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive. During the last few years, the application of fertilizers from aircraft, particularly to pastures, has become a feature of modern farm technique, and has enabled the artificial fertilization of some areas which would not be readily accessible to ground machinery. Details of the area treated and quantity of fertilizer used by both aerial and ground methods of application in total are shown in para. 3, below, while further details on aerial top-dressing are given in § 25.

In order to protect the users of artificial fertilizers, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features are given in Official Year Book No. 12, page 378.

2. *Imports and Exports.*—The Australian output of prepared fertilizers is derived chiefly from imported rock phosphate and is sufficient for local requirements.

The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilizers during the five years ended 1958–59 are shown in the following table:—

ARTIFICIAL FERTILIZERS : IMPORTS INTO AUSTRALIA.

Fertilizer.		1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Ammonium Sulphate	tons	35,056	9,466	28,251	20,945	19,979
	£'000	764	228	624	522	497
Potash Salts ..	tons	27,403	39,099	38,246	53,570	43,912
	£'000	489	652	638	882	710
Rock Phosphate ..	tons	1,086,884	1,418,527	1,321,607	1,273,766	1,353,739
	£'000	2,166	2,828	2,804	3,325	3,750
Sodium Nitrate ..	tons	11,714	14,102	11,219	14,430	7,505
	£'000	250	323	252	354	152
Other	tons	399	506	785	4,619	16,951
	£'000	14	16	20	125	497
Total	tons	1,161,456	1,481,700	1,400,108	1,367,330	1,442,086
	£'000	3,683	4,047	4,338	5,208	5,606

Export of fertilizers (practically all of which were manufactured locally) amounted to 14,059 tons valued at £442,000 in 1958-59 compared with 2,646 tons valued at £58,000 in 1957-58.

3. **Quantities Used Locally.**—Information regarding the area treated with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1958-59 season is given in the following table. Details of the area fertilized with natural manure (stableyard, etc.) are no longer collected.

AREA FERTILIZED AND QUANTITY OF ARTIFICIAL FERTILIZERS USED, 1958-59.

State or Territory.	Area Fertilized ('000 Acres).			Fertilizers Used (Tons).		
	Crops.	Pasture Lands.	Total.	Crops.	Pasture Lands.	Total.
New South Wales	3,016	4,320	7,336	126,416	218,074	344,490
Victoria	4,580	8,925	13,505	228,582	502,281	730,863
Queensland	498	17	515	110,244	1,497	111,741
South Australia	3,692	3,716	7,408	192,168	218,728	410,896
Western Australia	5,999	5,662	11,661	294,546	265,545	560,091
Tasmania	147	1,043	1,190	22,225	80,055	102,280
Northern Territory	1	..	1	135	9	144
Australian Capital Territory ..	4	42	46	353	2,371	2,724
Total	17,937	23,725	41,662	974,669	1,288,560	2,263,229

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the seasons 1954-55 to 1958-59, are shown in the next table. These details include the quantity used for the topdressing of pasture lands.

QUANTITY OF ARTIFICIAL FERTILIZERS USED.

(Tons.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
1954-55 ..	273,548	635,290	91,700	350,351	450,823	75,748	54	2,672	1,880,186
1955-56 ..	307,608	653,591	99,075	380,783	468,108	82,967	67	2,982	1,995,181
1956-57 ..	292,261	644,830	103,915	389,952	481,981	89,598	54	2,805	2,005,396
1957-58 ..	337,865	739,322	114,681	418,539	539,192	99,042	156	3,189	2,251,986
1958-59 ..	344,490	730,863	111,741	410,896	560,091	102,280	144	2,724	2,263,229

4. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1958–59 was 48, made up as follows:—New South Wales, 12; Victoria, 7; Queensland, 8; South Australia, 8; Western Australia, 6; and Tasmania, 7. The production of superphosphate in Australia during 1958–59 amounted to 2,124,000 tons.

§ 25. Aerial Agriculture.

During recent years, aircraft have been used for top dressing and seeding (principally of pastures) and for spraying and dusting of crops and pastures. During the year ended 31st March, 1959, the total area treated by aircraft was 2,268,392 acres—1,335,575 acres were topdressed and/or seeded, 835,957 acres were sprayed or dusted with insecticides, fungicides or herbicides, of which 800 acres were dusted in conjunction with top-dressing operations, and 97,660 acres were baited for rabbit destruction. For 1956–57 (the first year for which data are available), the total area treated was 1,465,959 acres, and in 1957–58 it was 2,011,715 acres. The following table shows details of area treated and materials used for each State for the year ended 31st March, 1959. The information was collected by the Department of Civil Aviation.

AERIAL AGRICULTURE : OPERATIONS DURING 1958–59.

Item.	Unit.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total. (a)
<i>Topdressing and Seeding—</i>								
Area treated with—								
Superphosphate	Acres.	713,402	252,529	360	50,753	33,491	100,700	1,151,235
Seed	„	72,329	10,336	104,043	5,685	20,619	1,900	214,912
Other	„	65,301	1,360	1,556	..	..	..	68,217
<i>Total (b) ..</i>	„	785,948	253,489	105,959	55,288	34,191	100,700	1,335,575
<i>Materials used—</i>								
Superphosphate	Tons.	35,809	15,895	36	3,624	2,231	5,769	63,364
Seed	lbs.	117,374	8,320	134,745	76,525	35,930	1,100	373,994
<i>Spraying and Dusting—</i>								
Area treated with—								
Insecticides ..	Acres:	63,920	82,740	30,643	40,069	158,604	2,600	378,576
Fungicides ..	„	..	600	1,473	..	..	..	2,073
Herbicides ..	„	68,244	75,747	30,571	37,467	255,518	..	467,547
<i>Total (b) ..</i>	„	128,124	155,256	62,315	77,542	410,120	2,600	835,957
Total Area Treated(b)	„	914,072	505,805	168,074	132,830	444,311	103,300	2,268,392
		(c)	(c)	(c)	(c)	(c)	(c)	(c)

(a) Includes Australian Capital Territory.
in one operation are counted once only.

(b) Areas treated with more than one type of material
(c) Includes 97,660 acres baited for rabbit destruction.

§ 26. Ensilage.

1. **Government Assistance.**—The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

2. **Quantity Made and Stocks Held on Farms.**—Information regarding production and farm stocks of ensilage for the years ended 31st March, 1957, 1958 and 1959, are given in the following table.

ENSILAGE : PRODUCTION AND FARM STOCKS.
(Tons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Production during—								
1956-57 season ..	106,521	187,220	46,255	50,900	12,644	60,454	210	464,204
1957-58 ..	91,486	194,850	41,367	23,230	27,988	52,125	58	431,104
1958-59 ..	243,990	301,839	73,365	68,988	76,997	63,974	410	829,563
Farm Stocks, as at—								
31st March, 1957 ..	135,302	(a)	74,705	41,338	8,466	67,135	580	(a)
„ „ 1958 ..	134,895	(a)	77,972	20,605	16,501	52,263	205	(a)
„ „ 1959 ..	333,178	(a)	126,693	50,170	53,549	62,758	435	(a)

(a) Not available.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage, and in the following seasons there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The accumulated stocks proved of great value during the 1914 drought. The quantities of ensilage made since 1914 have fluctuated considerably, but increased up to 1939-40 in which year it was 303,495 tons. During subsequent seasons, production declined to the extremely low level of 94,744 tons during the drought year 1944-45, rising to 180,622 tons in 1947-48 but decreasing again in succeeding years to 110,474 tons in 1951-52. Since then, production has increased substantially. In 1957-58, 431,104 tons were made and in 1958-59 a record production of 829,563 tons was recorded.

§ 27. Agricultural Colleges and Experimental Farms.

Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agricultural work and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are primarily concerned with agricultural research and experimentation, each farm concentrating on problems specific to the district in which it is located. The results of the work undertaken are passed on to farmers at field days, which are held at regular intervals, through publication in various agricultural or scientific journals and through the agricultural extension officers of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations throughout Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has a number of regional laboratories throughout the country. These laboratories conduct research into agronomic problems as they occur in each particular region. The most recently established laboratory which is concerned with all aspects of the culture and production of tobacco is at Mareeba, Northern Queensland. The State Departments of Agriculture study problems of particular significance within their own boundaries. The universities also carry out valuable research work on their own experimental farms.

§ 28. Tractors on Rural Holdings.

The growth of mechanization in agriculture is indicated by the increase in the number of tractors on rural holdings from 41,943 in 1939 to 232,819 in 1959. The annual increase in numbers reached its peak in 1951-52 when over 20,000 additional tractors were enumerated on holdings. The rate of increase has declined in more recent years and over the last five years averaged only about 12,000 per annum.

The table below sets out the number of wheeled and crawler type tractors by States for the five years ended 1959.

TRACTORS ON RURAL HOLDINGS.

March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
WHEELED TYPE TRACTORS.									
1955 ..	45,619	45,824	35,024	20,074	17,832	5,699	(a)	172	170,244
1956 ..	50,005	49,584	37,443	21,155	18,537	6,272	70	193	183,259
1957 ..	52,477	52,275	39,627	22,826	19,352	6,967	83	191	193,798
1958 ..	55,648	55,090	41,072	23,952	20,086	7,395	82	188	203,513
1959 ..	56,277	57,435	42,709	25,116	20,989	7,838	103	193	210,660
CRAWLER OR TRACK TYPE TRACTORS.									
1955 ..	3,479	1,430	4,945	3,036	3,334	660	(a)	9	16,893
1956 ..	4,001	1,645	5,313	3,190	3,654	745	32	10	18,590
1957 ..	4,232	1,621	5,180	3,186	3,556	843	31	8	18,657
1958 ..	4,605	1,825	6,506	3,336	3,877	974	38	7	21,168
1959 ..	4,669	2,067	6,998	3,416	3,996	968	38	7	22,159
TOTAL TRACTORS.									
1955 ..	49,098	47,254	39,969	23,110	21,166	6,359	(a)	181	187,137
1956 ..	54,006	51,229	42,756	24,345	22,191	7,017	102	203	201,849
1957 ..	56,709	53,896	44,807	26,012	22,908	7,810	114	199	212,455
1958 ..	60,253	56,915	47,578	27,288	23,963	8,369	120	195	224,681
1959 ..	60,946	59,502	49,707	28,532	24,985	8,806	141	200	232,819

(a) Not available.

§ 29. Number and Area of Rural Holdings and Employment Thereon.

NOTE.—In New South Wales, in 1955–56, the lists of rural holdings used in the collection of agricultural and pastoral statistics were reconciled with lists of ratable land of one acre or more in extent recorded by country shires for rating purposes. This reconciliation led to the addition of a number of holdings to the annual collection.

The only items of agricultural and pastoral statistics which were materially affected by the inclusion of the additional land holdings were:—number of holdings, area of holdings, persons engaged on rural holdings and wages and salaries paid. To permit continuity of comparison of the relevant statistics, the effects of the additions to the collection are set out in detail in Official Year Book No. 44, pages 911–912.

1. Number and Area.—A holding in Australia has been defined by statisticians on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent, used in the production of agricultural produce, the raising of livestock or the products of livestock.

There are considerable fluctuations from time to time in the numbers of very small holdings and it is very difficult to determine in some cases whether or not they are rural holdings within the definition.

In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied under short-term lease or other arrangement and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

The following table shows the recorded number and area of the holdings in each State for the seasons 1954–55 to 1958–59.

RURAL HOLDINGS : NUMBER AND AREA.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS.									
1954–55 ..	73,759	69,551	43,284	28,092	20,876	11,743	(a)	212	b 247,517
1955–56 ..	73,071	69,528	43,459	28,585	21,323	11,647	229	222	c 248,064
1956–57 ..	(c) 77,855	69,509	43,292	27,936	21,385	11,538	230	223	c 252,848
1957–58 ..	77,812	69,590	43,457	27,971	21,593	11,389	230	225	251,925
1958–59 ..	78,120	69,590	43,457	27,971	21,593	11,389	230	225	252,575
1959 ..	77,857	69,770	43,290	28,105	21,563	11,374	243	221	252,423

TOTAL AREA OF RURAL HOLDINGS.
(‘000 ACRES.)

1954-55	..	169,444 169,124	37,814	362,200	149,379	228,883	6,604	(a)	390	6,954,714
1955-56	..	c 172,255	37,857	367,464	149,965	229,734	6,628	160,153	389	1,121,314
										(c)
1956-57	..	172,411	37,659	368,689	149,932	232,689	6,508	168,447	390	1,124,445
1957-58	..	173,278	37,822	368,833	152,045	236,667	6,547	167,210	392	1,136,725
1958-59	..	172,978	37,755	370,240	152,312	238,264	6,573	156,897	381	1,142,794
										1,135,400

(a) Not available.
beginning of § 29.

(b) Excludes Northern Territory.

(c) New series. See NOTE at

2. **Special Tabulation Relating to Rural Holdings.**—(i) *Classification by Size.* Some of the information obtained from the 1955-56 Agricultural and Pastoral Census was classified by size and the results of these tabulations are shown in detail in *Primary Industries Part I—Rural Industries*, Bulletin No. 51, and in summarized form in *Official Year Book No. 44*, page 913.

(ii) *Classification by Type.* An experimental classification of holdings by type was carried out for New South Wales for 1955-56 in conjunction with the classification by size referred to above. An outline of the methods used and the results obtained are shown on page 914 of *Official Year Book No. 44*. This was the first attempt at a detailed classification of this kind in Australia although a very simple classification into the three categories—agricultural, pastoral or dairying (on the basis of main activity)—had been made in some earlier years. The methods used in the 1955-56 experimental classification are being used as the basis for an Australia-wide classification of holdings by type to be carried out for the 1959-60 season in conjunction with the classification of certain characteristics by size for that year.

3. **Employment on Rural Holdings.**—The following table shows, for each State, the recorded number of males working on rural holdings as at 31st March, 1959. Additional particulars relating to the number of males employed in agriculture are available up to 1941-42 in *Official Year Book No. 36*, page 852, and previous issues. Similar details for later years are not available.

MALES(a) ENGAGED ON RURAL HOLDINGS AT 31st MARCH, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.(b)	A.C.T.	Aust.
<i>Permanent Males—</i>									
Owners, Lessees or Share-farmers ..	(c)	(c)	44,659	23,329	19,974	7,806	183	161	(c)
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary ..			3,715	3,270	1,530	248	17	4	
Employees, including Managers and Relatives working for wages or salary ..			18,832	8,369	8,852	4,472	524	130	
<i>Total Permanent Males ..</i>			67,206	34,968	30,356	12,526	724	295	
<i>Temporary Males ..</i>			15,086	17,455	4,424	5,273	1,475	43	
<i>Total Males ..</i>			82,292	52,423	34,780	17,799	2,199	338	

(a) Details for females not available.

(b) 1,361 male full-blood aboriginals employed are included as temporary employees.

(c) Not available.

The next table shows for Australia as a whole the number of persons working full-time on rural holdings as at 31st March of the five years 1954 to 1958.

PERSONS ENGAGED ON RURAL HOLDINGS, AUSTRALIA.(a)

Particulars.	As at 31st March—				
	1954.(b)	1955(b).	1956.	1957.	1958.
Permanent—					
Males—					
Owners, Lessees or Share-farmers ..	241,149	240,879	245,621	244,111	241,247
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary ..	22,736	23,529	21,232	21,734	21,535
Employees, including managers and relatives working for wages or salary	93,748	91,479	89,334	90,599	91,308
Total, Males	357,633	355,887	356,187	356,444	354,090
" Females	49,782	46,656	42,104	41,373	39,763
Total Permanent ..	407,415	402,543	398,291	397,817	393,853
Temporary—					
Total, Males	86,644	87,400	84,607	86,267	93,142
" Females	8,365	9,238	9,638	11,324	12,986
Total Temporary ..	95,009	96,638	94,245	97,591	106,128
Grand Total	502,424	499,181	492,536	495,408	499,981

(a) Australian totals for 1959 are not available.

(b) Excludes Northern Territory.

4. Salaries and Wages Paid to Employees on Rural Holdings.—Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings have been collected uniformly in all States from 1949–50. Details are set out below for each State for the year 1958–59, and for Australia as a whole for the years 1954–55 to 1957–58.

**RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES,
1958-59.
(£'000.)**

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Permanent—Males ..	(b)	{	13,147	5,712	5,758	3,254	446	124	{(b)}
Females ..			1,145	224	31	71	33	6	
Temporary(c)—Males ..			19,896	4,978	5,387	1,792	366	98	
Females ..			218	335	42	198	34	2	
Total			34,406	11,249	11,218	5,315	879	230	

(a) Including value of keep.

(b) Not available.

(c) Includes amounts paid to contractors.

**RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES,
AUSTRALIA.(b)
(£'000.)**

Particulars.	1954–55.(c)	1955–56.	1956–57.	1957–58.
Permanent—Males	53,951	55,752	58,707	63,397
Females	2,468	2,456	2,456	2,793
Temporary(d)—Males	53,855	53,200	54,431	59,982
Females	1,323	1,476	1,498	1,656
Total	111,597	112,884	117,092	127,828

(a) Including value of keep.

(b) Australian totals for 1958–59 are not available.

(c) Excludes Northern Territory.

(d) Includes amounts paid to contractors.

5. Persons (of all ages) Residing Permanently on Holdings.—Particulars of persons (of all ages) residing permanently on rural holdings have been collected by all States at the annual Agricultural and Pastoral Census each year since 1954. Details for each State as at 31st March, 1959, and for Australia as a whole for the years 1955 to 1958 are shown below.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS AT 31st MARCH, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males ..	} (a) {	145,065	107,664	57,989	47,228	28,074	884	525	} (a)
Females ..		125,521	86,124	51,087	38,364	24,766	373	452	
Total ..		270,586	193,788	109,076	85,592	52,840	1,257	977	

(a) Not available.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS, AUSTRALIA.(a)

Particulars.					As at 31st March—			
					1955.	1956.	1957.	1958.
Males .. .. .	..	..	..	..	549,734	557,274	563,894	560,196
Females .. .. .	..	..	..	..	462,163	469,805	475,587	474,333
Total .. .. .	..	..	..	..	1,011,897	1,027,079	1,039,481	1,034,529

(a) Australian totals for 1959 are not available.

CHAPTER XXIII.

PASTORAL PRODUCTION.

NOTE.—Except where otherwise indicated, values of Australian oversea trade shown throughout this chapter are expressed as f.o.b., Australian currency, port of shipment.

§ 1. Initiation and Growth of the Pastoral Industry.

1. **Livestock Numbers.**—A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given in previous issues of the Year Book. Since 1860, annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at decennial intervals from 1860 to 1950, and from 1955 onwards in single years, are given in the following table, and are shown continuously on the graph on page 957.

LIVESTOCK : AUSTRALIA.
(‘000.)

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860 ..	432	3,958	20,135	351	1940 ..	1,699	13,080	119,305	1,455
1870 ..	717	4,276	41,594	543	1950 ..	1,057	14,640	112,891	1,123
1880 ..	1,069	7,527	62,184	816					
1890 ..	1,522	10,300	97,881	891	1955 ..	803	15,836	130,849	1,297
1900 ..	1,610	8,640	70,603	950	1956 ..	770	16,457	139,124	1,166
1910 ..	2,166	11,745	98,066	1,026	1957 ..	737	17,257	149,802	1,325
1920 ..	2,416	13,500	81,796	764	1958 ..	694	16,892	149,315	1,423
1930 ..	1,793	11,721	110,568	1,072	1959 ..	671	16,257	152,685	1,289

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of droughts which have from time to time left their impress on the pastoral history of Australia. These occurred in 1868, 1877, 1883–4, 1892, 1893, 1895, 1901–2, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41 and 1944–45 to 1946–47.

The years in which the numbers of livestock attained their maxima are as follows:—Horses, 1918 (2,527,000); cattle, 1957 (17,257,000); sheep, 1959 (152,685,000); and pigs, 1941 (1,797,000).

The distribution throughout Australia of beef cattle, dairy cattle, sheep and pigs as at 31st March, 1955, is shown in the maps on pages 909–12 of Official Year Book No. 43.

The numbers of horses, beef cattle and sheep in each State and Territory are shown later in this chapter; similar information for dairy cattle and pigs appears in Chapter XXIV.—*Farmyard, Dairy and Bee Products.*

2. **Minor Classes of Livestock.**—Statistics of the minor classes of livestock (goats, camels, mules, donkeys, etc.) have not been collected in recent years. The last year in which all States, other than Victoria, collected this information was 1941, when total numbers were as follows:—Goats, 80,366; camels, 2,267; and mules and donkeys, 10,881. Of these, goats were most numerous in Queensland, and camels, mules and donkeys in Western Australia. Further details have been published in earlier issues of the Official Year Book.

3. **Carrying Capacity of Pastoral Holdings.**—The carrying capacity of pastoral holdings has been increased in recent years, due in some measure to the succession of good seasons experienced since 1946 (with the exception of the 1957–58 season, when prevailing dry conditions caused a slight decline in cattle and sheep numbers). Other important factors contributing to the progressive increase over this period have been the increased attention to pasture improvement and the reduction of rabbit infestation.

There was a considerable decline in the rabbit population following the introduction of myxomatosis in 1950. This disease spread rapidly and the number of rabbits has been kept at a low level in recent years by the use also of poison baits, etc.

Statistics of the area under sown grasses and clovers which have been collected on a uniform basis in all States since 1952–53 reveal that the area sown has been considerably increased. In 1958–59, the area under sown grasses and clovers (excluding native grasses) totalled 34.1 million acres, an increase of 0.4 million acres (1 per cent.) over 1957–58 and 13.0 million acres (61 per cent.) over 1952–53. In recent years, the sowing and top-dressing of pastures has been facilitated by the increasing use of aircraft in these operations, an area of 1.3 million acres being sown and/or top-dressed in the year ended March, 1959.

4. **Value of Pastoral Production.**—(i) *Gross, Local and Net Values, 1958–59.* Values of pastoral production for each State are shown for 1958–59 in the following table. Further details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXX.—Miscellaneous. Maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net values are inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1958–59.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used, and Fodder for Farm Stock.	Value of other Materials used in Process of Production.	
New South Wales	190,207	16,120	174,087	7,672	(b) 4,049	162,366
Victoria ..	134,015	14,231	119,784	3,665	5,727	110,392
Queensland ..	107,089	9,620	97,469	5,039	1,670	90,760
South Australia ..	49,568	3,319	46,249	3,431	4,393	38,425
Western Australia	40,820	3,218	37,602	2,992	4,028	30,582
Tasmania ..	11,044	722	10,322	2,776	894	6,652
Northern Territory	4,567	749	3,818	..	..	3,818
Aus. Cap. Territory	738	51	687	19	41	627
Australia ..	538,048	48,030	490,018	25,594	20,802	443,622

(a) No deduction has been made for depreciation and maintenance. made for costs of power, power kerosene, petrol and other oils.

(b) No allowance has been

(ii) *Net Values, 1954–55 to 1958–59.* The net value of pastoral production by States and the net value per head of population for the years 1954–55 to 1958–59 are shown below.

NET VALUE OF PASTORAL PRODUCTION.(a)

Year.	N.S.W.(b)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(c)
NET VALUE. (£'000.)							
1954-55 ..	175,446	112,196	82,180	45,220	36,194	(b) 7,647	461,464
1955-56 ..	163,287	104,820	86,313	44,625	36,578	(b) 7,282	446,780
1956-57 ..	231,674	129,883	112,566	62,093	47,343	(b) 10,666	597,681
1957-58 ..	157,679	115,970	80,301	44,863	36,947	(b) 8,078	447,247
1958-59 ..	162,366	110,392	90,760	38,425	30,582	6,652	443,622

NET VALUE PER HEAD OF POPULATION.
(£ s. d.)

1954-55 ..	50 14 4	45 1 10	62 0 1	56 0 0	55 15 6	524 8 8	50 15 4
1955-56 ..	46 6 7	40 17 4	63 16 3	53 9 6	54 13 6	522 16 3	47 19 2
1956-57 ..	64 11 4	49 3 11	81 10 10	72 1 9	69 3 3	532 14 1	62 13 8
1957-58 ..	43 2 1	42 16 9	57 4 6	50 12 9	52 17 10	524 3 7	45 17 10
1958-59 ..	43 11 6	39 15 5	63 12 11	42 6 1	42 18 9	19 9 10	44 11 5

(a) No deduction has been made for depreciation and maintenance. Excludes payments to wool-growers of profits from the war-time wool disposal plan. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

5. Indexes of Quantum and Price of Pastoral Production, 1954-55 to 1958-59.—The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized in the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. For further details of the methods of calculating these indexes and of the weights used, see Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM(a) AND PRICE OF PASTORAL PRODUCTION:
AUSTRALIA.

(Base: Average 3 years ended June, 1939 = 100.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Quantum(a) produced—</i>					
Wool	132	146	164	148	164
Other products	120	123	128	134	152
<i>Total Pastoral</i> ..	127	136	148	142	159
Total per Head of Population ..	96	100	106	100	109
<i>Price—</i>					
Wool	540	468	607	473	370
Other products	409	424	427	377	435
<i>Total Pastoral</i> ..	489	451	536	435	396

(a) Index of value at constant prices, i.e., quantities revalued at average unit values of base years (1936-37 to 1938-39).

6. **Consumption of Meats.**—The quantity of meat (including cured and canned meat) in terms of carcass weight and edible offal available for consumption in Australia in 1958–59 was 1,087,581 tons. This is equivalent to 244.8 lb. per head of population compared with 244.6 lb. per head in 1957–58, and an average of 253.0 lb. during the years 1936–37 to 1938–39.

Although it is not easy to obtain strictly comparable particulars for other countries, it appears from data published by the Food and Agricultural Organization of the United Nations in its *Food Balance Sheets* that in recent years consumption of meat per head in Australia has been at approximately one and a half times the level of that in Canada and the United States of America.

7. **Marketing of Meat.**—(i) *General.* The Australian Meat Board, consisting of representatives of producers, processors, exporters and the Commonwealth Government, is responsible for the control of all exports of Australian meat and meat products. Further information on the powers, etc., conferred on the Board under the Meat Export Control Act 1935–1953 is given on page 801 of Official Year Book No. 40.

(ii) *United Kingdom Long-term Purchase Agreements.* Details of the long-term meat contracts with the United Kingdom Government from the outbreak of the 1939–45 War up to 30th June, 1952, and of the Fifteen Year Meat Agreement (1952–67) are given on page 710 of Official Year Book No. 41 and in earlier issues.

The Fifteen Year Meat Agreement (1952–67) between the United Kingdom and Australian Governments has as its objectives the promotion of meat production in Australia enabling increased exports to be made to the United Kingdom and the provision of a satisfactory market in the United Kingdom for such meat. It covers beef and veal, and mutton and lamb.

(iii) *Cessation of Bulk Purchasing.* Following the announcement in September, 1953, that the United Kingdom Ministry of Food would cease bulk purchasing of meat, arrangements were made between the Australian Meat Board and the Ministry for the reversion to private trading in the United Kingdom. The main features of the arrangements are:—

- (a) Mutton and lamb exported after 1st July, 1954, and beef, veal and pigmeat exported after 1st October, 1954, direct to United Kingdom importers are to be sold on the open market under methods similar to those which applied pre-war.
- (b) The following minimum prices (f.o.b. port of shipment), to operate until 30th September, 1955, were agreed upon:—Beef and veal, 13.18d. stg. per lb.; lamb, 13.61d. stg. per lb.; and mutton, 6.05d. stg. per lb. The minimum prices are to be reviewed for subsequent years.
- (c) In the event of market prices for the various classifications of meat averaging below the minimum, the Ministry is to make a payment to the Australian Government corresponding to the amount of the deficiency. So as to determine the extent of any deficiency, a procedure designed to measure as accurately as possible the weighted average level of wholesale prices of Australian meat on the United Kingdom market has been agreed upon.

(iv) *Private Trading.* After eight months of open trading, the Board estimated that a deficiency payment would be received in respect of beef for the first year. In order to make arrangements for this anticipated deficiency to be passed on to the producer, the Meat Agreement (Deficiency Payments) Act was passed by the Commonwealth Government in May, 1955. Payments were to be made on the understanding that they were, or would be, reflected in the price paid to producers.

To make provision for recoupment by the Board of any overpayment, the Meat Export (Additional Charge) Act was also passed in May, 1955.

Negotiations were made in Australia during August and September, 1955, to review minimum prices and the working of the Agreement generally. The following minimum prices were fixed for the three years ended 30th September, 1958:—For beef and veal and lamb the same as for the year ended 30th September, 1955, and for mutton the average prices realized to the end of April, 1955 (approximately 5.8d. stg. per lb.). In addition, minimum beef and veal prices were fixed for the three years 1958–61 at 5 per cent. below those for the 1955–58 period. Australia was entitled to export a free quota of 10,000 tons of beef, veal, lamb and mutton to destinations other than the United Kingdom and the

Colonies. Under the terms of the Agreement, provision was made for additional free quotas to be requested should depressed prices or other circumstances justify an approach of this kind. Under this arrangement, for the year ended 30th September, 1956, an additional 5,000 tons of beef for export to any destination was agreed upon.

In July and August, 1956, the annual review of the operation of the Agreement took place in London. It was agreed that Australia should be entitled to export 15,000 tons of beef, veal, mutton and lamb to destinations other than the United Kingdom and Colonies during each of the meat years 1956-57 and 1957-58.

Because of a rise in beef prices in the United Kingdom, the deficiency payments made by the Board during the year ended 30th September, 1955, exceeded the sum received from the United Kingdom for the same period. In an endeavour to recoup some of this overpayment, under the terms of the Meat Export (Additional Charge) Act, a levy of one-eighth of a penny per lb. was imposed on certain classes of beef exported to the United Kingdom out of stocks placed into store from 1st February to 16th April, 1956.

From 1st October, 1955, until April, 1958, beef prices in the United Kingdom were consistently below the level of the guarantee and consequently Australia "earned" deficiency payments as follows:—

Year.	Amount.
1954-55	£150,000
1955-56	£3,250,000
1956-57	£5,930,000

No deficiency payments were received in 1957-58 or 1958-59.

The receipt of these moneys enabled the Australian Meat Board to make substantial bounty payments on beef exported to the United Kingdom. The rates of payment made during the 1954-55 and 1955-56 seasons are given on pages 888-9 of Official Year Book No. 43 and on pages 920-1 of Official Year Book No. 44 for 1956-57.

For 1958, a new "chiller" grade of export beef was introduced. Beef of the new grade, whether exported in the chilled or frozen form, received a bounty of 5d. per lb. The bounty on bone-out piece beef was increased from 4d. to 5d. per lb., and on certain classes of bone-in piece beef from 3d. to 5d. per lb. The basic rate of 3d. per lb. was maintained for other 1st and 2nd quality quarter beef. The bounty payments were discontinued on 27th December, 1958, on account of the relatively high prices being obtained in the United Kingdom.

Negotiations which commenced in June, 1958, with the United Kingdom Government resulted in agreement on the following points:—

- (1) Beef minimum prices for the seasons 1961-62 to 1963-64 will be the 1957-58 to 1960-61 level less 9 per cent.
- (2) Lamb minimum prices for the seasons 1957-58 to 1959-60 will be the 1954-55 to 1957-58 level less 5 per cent.
- (3) Minimum prices for mutton for the seasons 1957-58 to 1959-60 will be the 1954-55 to 1957-58 level less 15 per cent.
- (4) Beef export free quota for the seasons 1957-58 to 1960-61 will be a maximum of 7,500 tons a year of 1st and 2nd quality beef with no restriction as to the quantity of the lower grades that may be exported.

During the 1958-59 season, as in previous years, the heaviest volume of beef exported went to the United Kingdom. However, with the new free quota arrangements which operated from 1st October, 1958, Australian exporters were able to take advantage of the market for boneless manufacturing meat in the United States, and a substantial quantity of lower-grade beef, including drought-stricken stock, etc., which otherwise might not have been marketed at all, was disposed of to American manufacturers.

§ 2. Horses.

1. **Distribution throughout Australia.**—About 80 per cent. of the total number of horses in Australia are in the States of New South Wales, Queensland and Victoria. In the following table, figures are shown for each State and Territory for the years 1955 to 1959.

HORSES: NUMBER.
(^{'000.})

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1955 ..	258	132	267	49	47	16	33	1	803
1956 ..	247	119	261	44	46	15	37	1	770
1957 ..	235	108	255	41	45	14	38	1	737
1958 ..	221	98	243	35	44	13	39	1	694
1959 ..	214	91	240	33	41	12	39	1	671

The number of horses in Australia reached its maximum during 1918, when a total of 2,527,149 was recorded. The United States of America recorded its highest number in the same year and Canada in 1921. The number in Australia has declined considerably since 1918 owing to the mechanization of transport and farming. During the period 1918 to 1959, the decrease in numbers has averaged 45,000 per annum.

A graph showing the number of horses in Australia from 1860 onwards appears on page 957.

The percentage distribution of the number of horses in each State and Territory for 1959 was:—New South Wales, 32; Victoria, 14; Queensland, 35; South Australia, 5; Western Australia, 6; Tasmania, 2; and Northern Territory, 6.

2. Oversea Trade in Horses.—(i) *Exports.* The export of horses from Australia during the early years of this century was fairly considerable, averaging about 15,000 head per annum between 1901 and 1920, exclusive of those used for war purposes during the 1914–18 War. Since then, exports have gradually declined and in 1958–59 amounted to only 349, valued at £222,223.

(ii) *Imports.* The few horses imported into Australia are mainly valuable stud animals from the United Kingdom and racehorses from New Zealand. The total number imported in 1958–59 was 391 valued at £432,207.

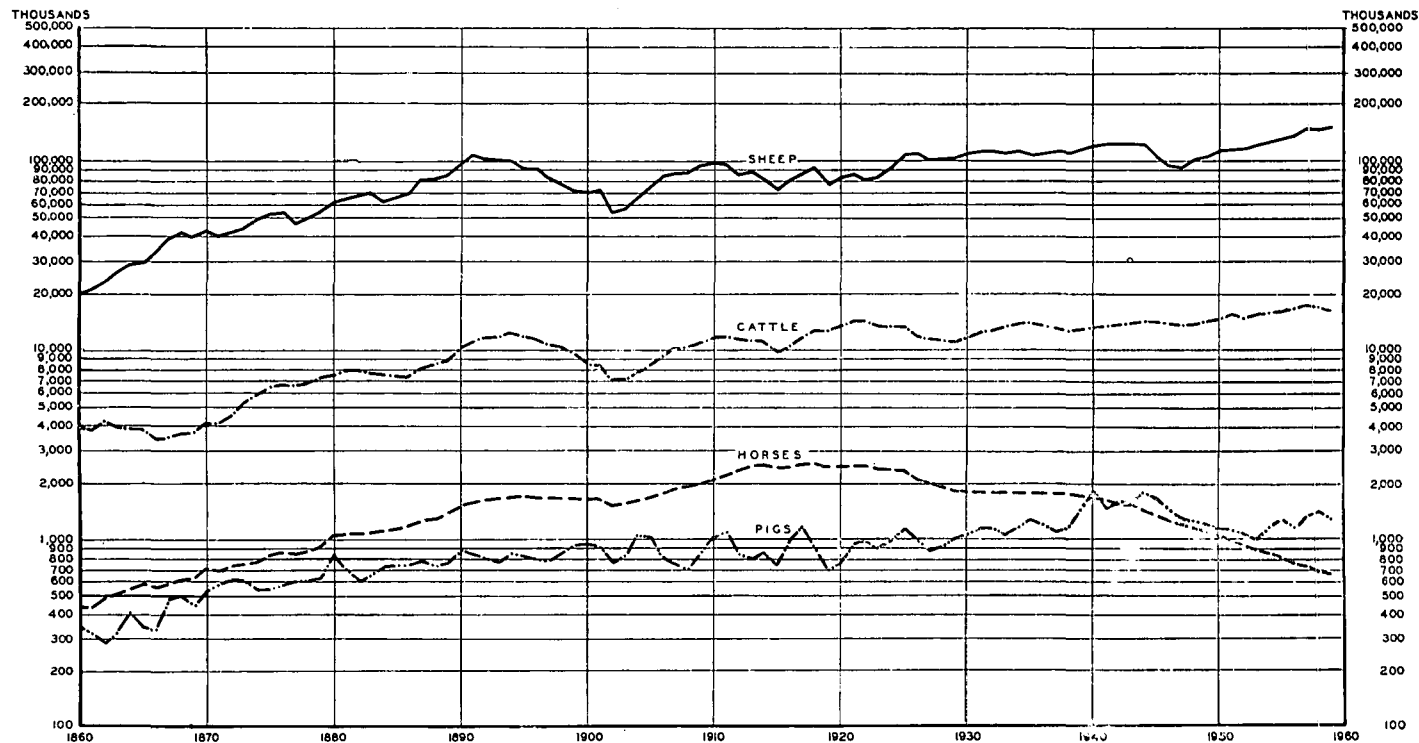
§ 3. Cattle.

1. Purposes for which Raised.—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in the coastal districts of Victoria, New South Wales and southern Queensland in particular, the portion of Australia in the temperate zone which is best adapted to this industry. On the other hand, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory, and the Kimberley district in the north of Western Australia.

2. Distribution throughout Australia.—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland took the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,312,000 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,063,000 in 1902. Following the disastrous drought which terminated in the latter year, the herds were gradually built up, and, despite recurring droughts, they continued to increase up to 14,441,000 in 1921. Numbers fluctuated in succeeding years, but from 1947 to 1957 there was a general upward movement to a record level of 17,257,000 in the latter year. With the onset of very dry conditions in 1958, numbers declined slightly to 16,892,000 and continuing drought over large areas of Queensland and the Northern Territory was largely responsible for a further reduction to 16,257,000 in 1959. A graph showing the number of cattle in Australia from 1860 onwards appears on page. 957.

LIVESTOCK : AUSTRALIA, 1860 to 1959

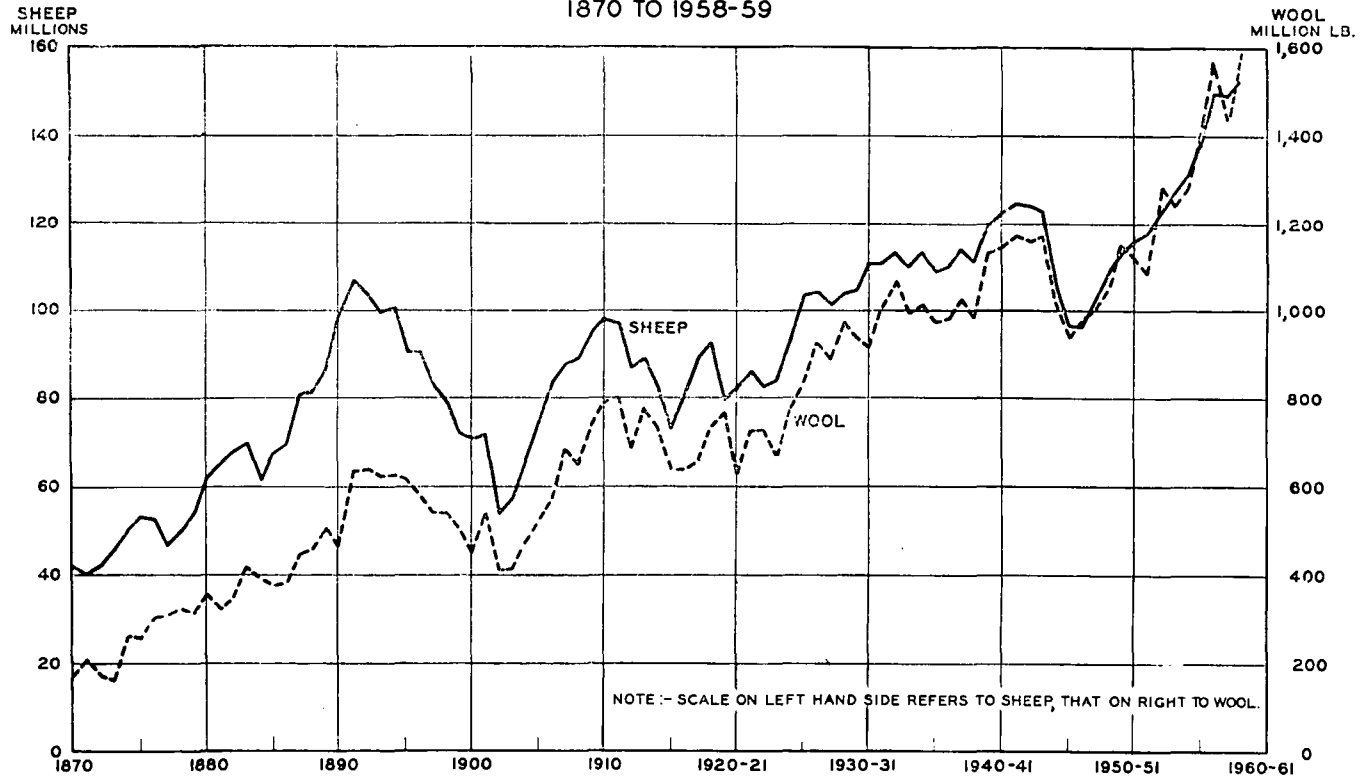
RATIO GRAPH



NOTE:- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY SCALE.

SHEEP NUMBERS AND WOOL PRODUCTION: AUSTRALIA

1870 TO 1958-59



The numbers of cattle (beef and dairy) in the several States and Territories in each year 1955 to 1959 are shown below.

CATTLE: NUMBER.
(^{'000.})

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
1955 ..	3,461	2,456	7,238	524	861	319	969	8	15,836
1956 ..	3,678	2,616	7,331	566	897	332	1,028	9	16,457
1957 ..	3,911	2,765	7,462	621	957	354	1,176	11	17,257
1958 ..	3,736	2,750	7,187	597	997	371	1,244	10	16,892
1959 ..	3,664	2,651	6,884	576	1,000	374	1,099	9	16,257

Although the proportion was not as high as it has been in some previous years, Queensland was carrying 42 per cent. of the cattle in Australia in 1959. The percentage in each State and Territory during that year was:—New South Wales, 23; Victoria, 16; Queensland, 42; South Australia, 4; Western Australia, 6; Tasmania, 2; and Northern Territory, 7.

Maps showing the distribution of beef and dairy cattle in Australia have been published in previous issues of the Official Year Book (*see* No. 43, pp. 909–10 for 1955; No. 39, pp. 905–6, for 1948; No. 34, pp. 453–4, for 1938–39; and No. 22, p. 660, for 1924–25).

3. **Classification of Cattle According to Purpose.**—Of the total number of cattle in Australia in 1959, 11,411,061 or 70 per cent. were classified as beef cattle. The numbers classified as beef cattle in the several States and Territories, during the years 1955 to 1959, were as follows:—

BEEF CATTLE: NUMBER.
(^{'000.})

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
1955 ..	2,196	856	5,861	255	633	129	969	5	10,904
1956 ..	2,341	954	5,946	302	673	148	1,028	6	11,398
1957 ..	2,577	1,044	6,087	356	733	158	1,176	8	12,139
1958 ..	2,429	1,026	5,917	338	771	167	1,244	6	11,898
1959 ..	2,382	998	5,643	328	784	171	1,099	6	11,411

Particulars relating to dairy cattle numbers will be found in Chapter XXIV.—Farm-yard, Dairy and Bee Products.

4. **Size Classification of Cattle Herds.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955–56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings*, 1955–56. Condensed tables also appear in *Primary Industries, Part I*, Bulletin No. 51. The tables relating to beef and dairy cattle show classifications according to size of herd, area of holding, area of wheat for grain and area of sown pastures.

5. **Comparison with other Countries.**—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world for the years 1936–40 and at the latest available date. The figures, which, in general, have been compiled by the United States Department of Agriculture for publication in *Foreign Crops and Markets* and *Foreign Agriculture Circular*, and by the Food and Agriculture Organization of the United Nations for publication in *Yearbook of Food and Agricultural Statistics: Production*, relate to areas embraced by post-war boundaries, but do not cover identical areas for the two periods in all cases.

CATTLE: NUMBER IN VARIOUS COUNTRIES.
(^{'000.})

Country.	Average, 1936-40.(a)	Year and Month.	Number.
India(b)	180,000	1956 (May) ..	203,629
United States of America	66,706	1959 (January) ..	96,851
Brazil	40,807	1959 (December) ..	72,000
U.S.S.R.	59,800	1959 (January) ..	70,800
China	25,600	1956 (May) ..	45,300
Argentina	33,762	1958 (June) ..	41,100
Pakistan(b)	33,000	1956 (December) ..	37,569
Ethiopia	18,000	1958 (January) ..	23,000
Mexico	11,716	1959 (December) ..	19,400
France	15,504	1959 (October) ..	18,404
Australia	13,285	1959 (March) ..	16,400
Colombia	8,010	1959 (October) ..	14,490
Turkey(b)	8,611	1959 (December) ..	13,088
Germany, Federal Republic of	12,114	1959 (December) ..	12,071
Union of South Africa	11,636	1955 (August) ..	12,000

(a) In some cases census for a single year, and in others an average for two to four years.
(b) Includes buffaloes.

6. **Imports and Exports of Cattle.**—The products of the cattle-raising industry figure largely in the export trade of Australia although until recently the export of live cattle has never been large. In 1958-59, exports of cattle, mainly to the Philippines for slaughter, amounted to 13,900 valued at £493,000. The number of cattle imported is small, and as in the case of horses, consists mainly of valuable animals for stud purposes. Details for the years 1954-55 to 1958-59 are as follows:—

CATTLE: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.	
	No.	Value. (£'000.)	No.	Value. (£'000.)
1954-55	1,679	155	6,786	346
1955-56	304	229	8,025	475
1956-57	145	123	18,360	754
1957-58	272	174	23,941	933
1958-59	37	62	13,900	493

The average value per head of the cattle imported during the last five years was £305 while the average value per head of the cattle exported during the same period was £42.

7. **Cattle Slaughtered.**—The numbers of cattle slaughtered during each of the years ended June, 1955 to 1959, are shown in the following table:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.
(^{'000.})

Year ended June—	Slaughterings passed for Human Consumption.									Total Slaughtering including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1955	1,518	1,024	1,430	233	181	75	16	8	4,485	4,550
1956	1,547	1,023	1,502	227	191	88	25	9	4,612	4,675
1957	1,591	1,139	1,641	252	192	102	25	10	4,952	5,017
1958	1,742	1,404	1,541	282	216	118	24	12	5,339	5,411
1959	1,894	1,397	1,883	287	249	128	24	10	5,872	5,960

8. **Production of Beef and Veal.**—Details of the production of beef and veal in each State and Territory are shown in the following table for the years indicated:—

PRODUCTION OF BEEF AND VEAL (BONE-IN WEIGHT): AUSTRALIA.

('000 tons.)

Year ended June—	N.S.W.	Vic.	Qld.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1955 ..	215	143	272	34	37	14	3	2	720
1956 ..	222	139	292	38	38	15	5	2	751
1957 ..	236	159	317	40	38	18	5	2	815
1958 ..	233	181	270	41	39	20	5	2	791
1959 ..	275	189	328	42	45	20	5	2	906

9. **Consumption of Beef and Veal.**—For the three years 1936–37 to 1938–39, the average annual production of beef and veal in Australia was 569,000 tons of which 127,000 tons were exported, leaving a balance of 442,000 tons (or the carcass equivalent of 144 lb. per head of population per annum) available for consumption as fresh and canned meat. Since the 1939–45 War, consumption per head of beef and veal has been at a somewhat lower level. For the three years 1946–47 to 1948–49, the average annual consumption per head was 112.5 lb. or 13 per cent. below the immediate pre-war level. In 1958–59 it amounted to 121.9 lb. per head, consisting of 118.1 lb. of carcass meat and 3.8 lb. (carcass equivalent) of canned meat.

In the following table, details of the production and disposal of beef and veal are shown for the years 1954–55 to 1958–59, compared with the averages for the three years 1936–37 to 1938–39 and 1946–47 to 1948–49.

PRODUCTION AND DISPOSAL OF BEEF AND VEAL (BONE-IN WEIGHT): AUSTRALIA.

('000 tons.)

Year.			Net Change. in Stocks.	Production.	Exports.	For Canning.	Consumption in Aus- tralia as Human Food.	
							Total.	Per Head per Annum.
Average, 1936-37 to 1938-39 ..	(a)		569	121	18	430	lb. 140.3	
Average, 1946-47 to 1948-49 ..	+	1	542	101	67	373	109.1	
1954-55 ..	+	4	720	137	106	473	116.5	
1955-56 ..	-	7	751	163	100	495	119.1	
1956-57 ..	+	4	815	177	85	549	128.9	
1957-58 ..	+	4	791	155	86	546	125.5	
1958-59 ..	+	9	906	295	77	525	118.1	

(a) Not available.

10. **Exports of Frozen Beef and Veal.**—The export of frozen meat from Australia dates from about 1881, and since that year the trade has grown considerably. The quantity and value of frozen beef and veal exported in each year 1954–55 to 1958–59 are shown in the following table.

EXPORTS OF FROZEN BEEF AND VEAL: AUSTRALIA.

Year.	Exports of Frozen and Chilled Beef.		Exports of Frozen Veal.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.
1954-55	271,772	21,408	4,626	491
1955-56	318,059	22,936	4,689	495
1956-57	331,255	22,863	3,391	408
1957-58	276,607	20,961	5,397	609
1958-59	499,396	54,157	10,924	1,337

The largest purchaser of Australian beef and veal is the United Kingdom. In 1958-59, shipments to that country were valued at £30,918,000 or 56 per cent. of the total value of beef and veal exports, while exports to the United States of America amounted to £18,365,000 or 33 per cent. of the total.

Because of the preference overseas for chilled beef, the Australian beef industry was at a serious disadvantage until investigations proved that beef could be successfully transported from Australia to the United Kingdom in a chilled condition. Trial shipments began in 1932-33 and exports in subsequent years increased to a maximum of 58,963,000 lb. in 1938-39. However, the 1939-45 War seriously affected the export trade in chilled beef, which declined to a negligible amount after 1939-40. In 1958-59, chilled beef exports were 13,358,000 lb. valued at £1,185,000, whilst frozen beef exports amounted to 486,038,000 lb. valued at £52,972,000.

Both quantity and value of exports of beef, in particular, reached a record level during 1958-59. The value of exports to the United Kingdom was approximately double that of the previous year and the new marketing arrangements mentioned on page 954 permitted the substantial increase in exports to the United States.

§ 4. Sheep.

1. **Introduction of Sheep.**—The suitability of the Australian climate and general conditions for the production of a high class of wool were recognized at an early date by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. While it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the sheep industry in Australia is certainly his.

2. **Movement in Sheep Numbers in Australia.**—Fluctuations in the number of sheep recorded in Australia for each year from 1860 onwards may be seen from the graph on page 958. Up to 1945, there were five marked periods of decline, but the losses were made up rapidly. In each of the years 1925 to 1945, the sheep flocks exceeded 100 million, reaching 125.2 million in 1942. During the three years ended 1947, however, a sharp decline to 95.7 million occurred. This was largely attributable to the severe drought conditions

experienced during 1944, 1945 and 1946. The passing of the drought and consequent re-stocking resulted in a steady increase in sheep numbers, and although dry seasonal conditions were responsible for a slight decline at 31st March, 1958, a record level of 152.7 million was reached at 31st March, 1959.

The following table shows the approximate movement in sheep numbers in Australia in each year 1954-55 to 1958-59.

SHEEP AND LAMBS : ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA.
(‘000.)

Season.	Lambs Marked.	Excess of Exports.	Sheep and Lambs Slaughtered.	Estimated Number of Deaths from Disease, Drought, etc.(a)	Number at 31st March.	Annual Net Increase (+) or Decrease(-)
1954-55..	32,804	97	22,454	6,348	130,849	+ 3,905
1955-56..	36,914	97	21,180	7,362	139,124	+ 8,275
1956-57..	39,902	122	19,503	9,599	149,802	+ 10,678
1957-58..	36,398	120	24,417	12,348	149,315	- 487
1958-59..	38,748	136	26,775	8,467	152,685	+ 3,370

(a) Balance figure.

3. **Distribution throughout Australia.**—With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing nearly one-half of the sheep of Australia.

Maps showing the distribution of sheep in Australia have been published in previous issues of the Official Year Book (*see* No. 43, p. 911, for 1955; No. 39, p. 907, for 1948; No. 34, p. 432, for 1938-39; and No. 22, p. 659, for 1924-25).

The numbers of sheep in the several States and Territories at 31st March of each year 1955 to 1959, are shown in the following table:—

SHEEP : NUMBER.

(‘000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1955 ..	59,200	22,330	20,222	12,817	13,411	2,595	29	245	130,849
1956 ..	62,988	23,343	22,116	13,585	14,128	2,673	33	258	139,124
1957 ..	67,670	25,831	23,190	14,984	14,887	2,943	30	267	149,802
1958 ..	65,410	27,090	22,274	15,236	15,724	3,298	27	256	149,315
1959 ..	67,936	26,925	22,148	15,634	16,215	3,536	19	272	152,685

Except when affected by drought, the relative numbers of sheep in the different States in recent years have remained fairly constant.

The percentage distribution in 1959 was:—New South Wales, 44; Victoria, 18; Queensland, 15; South Australia, 10; Western Australia, 11; and Tasmania, 2.

4. **Classification of Sheep According to Age, Sex and Breed.**—In the following table, numbers of sheep in Australia are classified according to age and sex at 31st March of the years 1955 to 1959.

SHEEP : AGE AND SEX, AUSTRALIA.

('000.)

Description.	31st March—				
	1955.	1956.	1957.	1958.	1959.
Rams, 1 year and over ..	1,647	1,721	1,830	1,883	1,919
Breeding ewes (including ewes intended for mating) ..	58,614	62,483	66,844	66,059	69,470
Other ewes, 1 year and over ..	7,847	7,553	8,447	9,795	8,295
Wethers, 1 year and over ..	37,645	39,142	41,573	43,688	43,578
Lambs and hoggets, under 1 year	25,096	28,225	31,108	27,890	29,423
Total, Sheep and Lambs	130,849	139,124	149,802	149,315	152,685

Particulars relating to the principal breeds of sheep at 31st March, 1959, are shown in the following table:—

SHEEP : PRINCIPAL BREEDS, 31st MARCH, 1959.

('000.)

Breed.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Merino ..	52,467	11,410	21,725	13,112	14,921	325	19	245	114,224
Other recognized breeds ..	6,037	6,118	72	1,061	542	1,841	..	12	15,683
Merino come-backs(a) ..	3,408	3,422	70	312	146	466	..	2	7,826
Crossbreds (b) ..	6,024	5,975	281	1,149	606	904	..	13	14,952
Total ..	67,936	26,925	22,148	15,634	16,215	3,536	19	272	152,685

(a) Merino comeback is the progeny of a crossbred merino ewe and a merino ram, i.e., finer than half-bred. (b) Half-bred and coarser.

5. **Numbers of Sheep on Rural Holdings.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955–56 and published in full detail in a series of mimeographed bulletins—*Size Classification of Rural Holdings 1955–56*. Condensed tables also appear in *Primary Industries, Part I*. Bulletin No. 51. The tables relating to sheep farming show classifications according to size of flock, area of holding, area of wheat for grain and area of sown pasture.

6. **Comparison with other Countries.**—Australia has long occupied the leading position amongst the sheep raising countries of the world in respect of the size of its flocks and the quantity and quality of wool produced. In 1957–58, Australian flocks numbered 149 million sheep, compared with an estimate of 205 million for the U.S.S.R., China, and Eastern Europe, about 46 million in Argentina and about 46 million in New Zealand. The total world sheep population was estimated at about 919 million in 1957–58. Further details of sheep numbers in the principal wool producing countries of the world for 1956–57 and 1957–58 are given in the table on page 969.

7. **Oversea Imports and Exports of Sheep.**—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. On 27th November, 1929, the export of stud merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly to Singapore from Western Australia. The following table shows the imports and exports of all sheep for the years 1954–55 to 1958–59.

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.	
	No.	Value.	No.	Value.
		£'000.		£'000.
1954-55	232	13	97,146	340
1955-56	4,437	89	101,837	332
1956-57	7,445	212	129,480	482
1957-58	2,256	90	122,628	466
1958-59	5	1	135,720	393

8. **Sheep Slaughtered.**—The following table shows the numbers of sheep slaughtered in the several States during each of the years ended June, 1955 to 1959 :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.
(‘000.)

Year.	Slaughterings Passed for Human Consumption.									Total Slaughterings including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1954-55.. .. .	7,318	8,714	1,009	2,799	1,673	643	3	74	22,233	22,303
1955-56.. .. .	6,840	7,860	1,186	2,358	1,796	645	2	73	20,760	20,797
1956-57.. .. .	6,951	7,038	1,270	2,329	1,907	684	2	66	20,247	20,310
1957-58.. .. .	7,761	9,624	1,378	3,278	1,856	734	4	74	24,709	24,878
1958-59.. .. .	8,861	10,514	1,633	3,145	2,415	909	4	71	27,552	27,646

9. **Production of Mutton and Lamb.**—Details of the production of mutton and lamb in each State and Territory are shown below :—

PRODUCTION OF MUTTON AND LAMB.
(Tons.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55	122,499	155,611	18,550	49,853	28,413	11,901	78	1,259	388,164
1955-56	120,615	146,228	23,020	44,339	32,759	11,778	59	1,333	380,131
1956-57	121,947	131,253	23,866	42,563	33,303	12,607	49	1,198	366,786
1957-58	127,800	169,107	24,381	53,681	31,942	13,221	90	1,254	421,476
1958-59	156,020	193,379	29,286	55,001	40,875	16,403	93	1,269	492,326

10. **Consumption of Mutton and Lamb.**—For the three years 1936-37 to 1938-39, the annual production of mutton and lamb averaged 319,000 tons of which 88,900 tons were exported leaving a balance of 230,100 tons (or the carcass equivalent of 74.8 lb. per head of population per annum) available for consumption.

Civilian consumption of mutton and lamb (in carcass equivalent weight including that used for canning) rose substantially during the 1939-45 War, but fell again in 1946-47 and up to 1951-52 was lower than in pre-war years. It rose during succeeding years to 78 lb. per head in 1952-53, and except for slight drops in 1955-56 and 1956-57 this level was maintained up to 1957-58. There was a further sharp rise in 1958-59 to 87 lb. per head.

In the following table, details of the production and disposal of mutton and lamb are shown for the periods stated.

**PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (BONE-IN WEIGHT):
AUSTRALIA.
(’000 tons.)**

(100 tons.)

Year.	Changes in Stock.	Pro- duction.	Exports.	For Canning and Dehydration.	Consumption in Australia.	
					Total.	Per Head per Annum. (lb.)
MUTTON.						
Average 1936-37 to 1938-39 ..	..	201	17	..	184	59.8
Average 1946-47 to 1948-49 ..	..	177	15	8	154	45.1
1954-55	- 1	240	15	15	211	52.1
1955-56	- 1	234	15	16	204	49.1
1956-57	+ 2	224	10	13	199	46.8
1957-58	+ 1	270	23	26	220	50.5
1958-59	- 2	310	49	17	246	55.1
LAMB.						
Average 1936-37 to 1938-39 ..	..	118	72	..	46	15.0
Average 1946-47 to 1948-49 ..	- 1	130	45	..	86	25.2
1954-55 .. ..	..	148	42	..	106	26.0
1955-56 .. ..	..	145	36	..	109	26.2
1956-57	+ 1	143	24	..	118	27.7
1957-58	- 1	152	29	..	122	28.4
1958-59 .. ..	..	182	40	..	142	31.9

11. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process expanded rapidly up to 1913 when 205 million lb. were shipped. It declined in subsequent years and it was not until 1942-43 that it almost reached this level again. In earlier years, shipments consisted mainly of frozen mutton, but in 1923-24 lamb supplanted mutton and the exports of lamb were largely responsible for the increase in total shipments during the ten years to 1942-43. Exports, however, fell again after 1942-43 and in 1956-57 amounted to only 76,274,000 lb. but in 1958-59 recovered to 165,841,000 lb., consisting of 91,191,000 lb. lamb and 74,650,000 lb. mutton.

The quantities and values of exports of frozen mutton and lamb in each year 1954-55 to 1958-59 are shown in the following table.

EXPORTS OF FROZEN MUTTON AND LAMB: AUSTRALIA.

Year.	Exports of Frozen Mutton.		Exports of Frozen Lamb.		Exports of Frozen Mutton and Lamb.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	’000 lb.	£’000.	’000 lb.	£’000.	’000 lb.	£’000.
1954-55.. ..	33,811	1,626	94,982	10,191	128,793	11,817
1955-56.. ..	34,657	1,885	81,626	7,867	116,283	9,752
1956-57.. ..	23,012	1,322	53,262	4,773	76,274	6,095
1957-58.. ..	42,270	2,253	64,352	6,132	106,622	8,385
1958-59.. ..	74,650	5,851	91,191	8,151	165,841	14,002

As with beef, the principal customer in this trade has normally been the United Kingdom. In 1958-59, exports of mutton and lamb to that country represented 39 per cent. and 83 per cent., respectively, of the total quantities exported. Forty-seven per cent. of the mutton exported went to the United States of America, although the proportion of lamb exported to that country was only three per cent.

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep, Australia produces more than one-quarter of the world's wool (30 per cent. in 1958–59) and about half of the total fine-quality merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonized wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The remainder, which is used by Australian manufacturers, has amounted to only five per cent. of the total production (greasy basis) in recent years.

The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 969.

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “clean” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of grease and other matter in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep.

From 1946–47 to 1952–53, the Australian Wool Realization Commission, and from 1953–54, the Wool Statistical Service, has assessed annually the clean yield of the Australian wool clip. Apart from a fall in 1953–54 when the yield fell to 55.7 per cent. from 57.5 per cent. in the previous year, a steady increase in the yield of clean from greasy wool was maintained from 1946–47 to 1956–57, when it reached 57.7 per cent. In 1957–58 and 1958–59, the yield fell again to 56.7 per cent. and 56.6 per cent. respectively. A standard factor of 93 per cent. is taken as the clean yield of Australian scoured wools.

Wool scoured, washed and carbonized in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonized includes a large proportion of dirty and low-grade wool. In recent years, it has approximated 53 per cent. The quantity of this wool exported during 1958–59 was approximately 12 per cent. of the total raw wool exports (excluding wool exported on skins) in terms of greasy.

3. **Production.**—The bulk of the Australian wool production is shorn from live sheep. In recent years, approximately 3 per cent. was obtained by fellmongering and about 5 per cent. was on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table shows the production for the five years 1954–55 to 1958–59. Particulars of the gross value of wool produced are based, for shorn wool, upon the average price realized for greasy wool sold at auction, and for skin wools, on prices recorded by fellmongers and skin exporters.

WOOL: TOTAL PRODUCTION (IN TERMS OF GREASY).

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
New South Wales	540,977	593,712	660,343	557,287	684,184
Victoria	253,364	273,356	299,572	296,490	298,844
Queensland	176,548	194,014	227,664	204,375	219,148
South Australia	155,761	173,697	188,808	185,843	186,842
Western Australia	129,662	156,454	156,402	158,281	166,522
Tasmania	23,797	23,418	28,663	29,154	32,605
Northern Territory(a) ..	311	393	346	291	195
Australian Capital Territory ..	2,232	2,328	2,457	2,133	2,522
<i>Australia—</i>					
Shorn (including Crutchings)	1,173,906	1,303,944	1,457,387	1,319,941	1,456,759
Dead and Fellmongered ..	44,417	44,051	37,724	30,894	41,795
Exported on Skins ..	64,329	69,377	69,144	83,019	92,308
<i>Total—Quantity</i> ..	<i>1,282,652</i>	<i>1,417,372</i>	<i>1,564,255</i>	<i>1,433,854</i>	<i>1,590,862</i>
	£'000.	£'000.	£'000.	£'000.	£'000.
„ <i>Value</i> ..	367,138	354,064	507,615	363,406	311,415

(a) Estimated prior to 1957–58.

4. **Care Needed in Comparing Clips.**—In comparing successive clips, allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. **Average Weights of Fleeces Shorn.**—The average weights of sheep and lamb fleeces shorn in each of the States of Australia and in the Australian Capital Territory are shown in the following table for each season 1954–55 to 1958–59.

AVERAGE WEIGHT OF SHEEP AND LAMB FLEECES SHORN.
(lb.)

State.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
SHEEP.					
New South Wales	9.32	10.01	9.92	8.45	9.88
Victoria	9.83	10.41	11.02	9.69	9.47
Queensland	9.23	9.96	9.98	8.93	9.75
South Australia	11.86	12.68	13.14	11.60	11.87
Western Australia	9.76	11.33	10.73	10.54	10.49
Tasmania	9.31	8.85	10.07	9.38	9.37
Australian Capital Territory ..	9.03	9.75	10.20	8.28	10.41
Australia(a)	9.69	10.45	10.51	9.30	10.03
LAMB.					
New South Wales	2.90	3.11	3.30	2.75	3.08
Victoria	2.62	2.78	3.11	2.71	2.59
Queensland	3.61	4.18	4.09	3.76	3.84
South Australia	3.29	3.92	4.11	3.37	3.52
Western Australia	2.50	2.88	2.78	2.77	2.60
Tasmania	2.14	2.36	2.46	2.40	2.31
Australian Capital Territory ..	1.16	1.33	1.52	1.19	1.45
Australia(a)	2.91	3.22	3.37	2.91	3.03

(a) Excludes Northern Territory.

6. **Wool classified according to Quality.**—Under control exercised during the 1939–45 War, records were kept of the classification of each lot of wool appraised according to quality, degree of fault and combing or carding type for each of the years 1940–41 to 1945–46. From the resumption of auctions in 1946–47 to 23rd October, 1953, this analysis was continued by the Australian Wool Realization Commission and from 23rd October, 1953, by the Wool Statistical Service, but the basis of the data has been changed to the catalogues of auction sales, and not upon appraisal as previously. The following table provides a detailed analysis of wool sold at auction according to quality, for the years 1954–55 to 1958–59. "Quality" ("64's, 60's, 58's," etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb. of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb. of tops (combed wool) of that particular wool.

CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(a): AUSTRALIA.
(Bales of approximately 300 lb.)

Pre-dominating Quality.	1954–55.		1955–56.		1956–57.		1957–58.		1958–59.	
	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.
70's and finer	95,055	2.5	86,925	2.1	100,011	2.1	114,188	2.7	112,966	2.5
64/70's ..	415,012	10.9	424,946	10.2	527,264	11.1	609,897	14.3	442,019	9.5
64's ..	595,519	15.6	583,929	14.0	690,038	14.5	696,064	16.4	607,653	13.1
64/60's ..	376,607	9.9	390,633	9.4	478,418	10.1	392,933	9.2	477,054	10.3
60/64's ..	752,490	19.7	833,228	20.0	987,496	20.8	847,824	19.9	1,021,139	21.9
60's and 60/58's ..	641,970	16.8	746,019	17.9	804,363	16.9	645,119	15.2	837,338	17.9
Total 60's and finer	2,876,653	75.4	3,065,680	73.6	3,587,590	75.5	3,306,025	77.7	3,498,169	75.2
58's ..	416,419	10.9	503,868	12.1	502,566	10.6	435,436	10.2	519,238	11.2
56's ..	312,055	8.2	350,219	8.4	376,660	7.9	297,662	7.0	363,968	7.8
50's ..	125,878	3.3	146,640	3.5	162,533	3.4	116,329	2.7	149,356	3.2
Below 50's ..	42,523	1.1	47,505	1.1	50,055	1.0	38,514	0.9	44,292	1.0
Oddments ..	44,209	1.1	53,747	1.3	74,226	1.6	65,348	1.5	74,385	1.6
Grand Total	3,817,737	100.0	4,167,659	100.0	4,753,630	100.0	4,259,314	100.0	4,649,408	100.0

(a) All greasy wool sold at auction except "wool re-offered account buyer".

7. **World Sheep Population and Wool Production.**—The following table shows particulars of the sheep population and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred and carpet type wool for the latest available years. The data have been taken from reports published by the Commonwealth Economic Committee compiled from questionnaires prepared by the Committee and the International Wool Textile Organization and from other official sources.

In 1958–59, Australia produced 30 per cent. of the world total of all types of wool, the share of all British Commonwealth countries combined representing approximately 50 per cent. The principal wool producers, other than Australia, are New Zealand with 10 per cent. of the world total, Argentina, 8 per cent., United States of America, 6 per cent., and Union of South Africa, 6 per cent. Production in the U.S.S.R., China, and Eastern European countries together amounted to 18 per cent. World production of wool (all types) in 1958–59 exceeded the average for 1934–38 by approximately 1,500 million lb. or 40 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type. World production of merino wool in 1958–59 was 40 per cent. above the average for 1934–38, and the production of crossbred types has risen by about 53 per cent. Carpet wool production has risen by about 26 per cent.

ESTIMATED WORLD SHEEP POPULATION AND PRODUCTION OF WOOL.

Country.	Sheep Numbers ('000,000).			Wool Production ('000,000 lb.— in terms of greasy).		
	1955–56.	1956–57.	1957–58. (a)	1956–57.	1957–58.	1958–59. (a)
<i>British Commonwealth—</i>						
Australia	139.1	149.8	149.3	1,564	1,434	1,591
New Zealand	40.3	42.4	46.0	491	496	540
South Africa (b)	38.0	37.5	37.5	321	299	315
Other Commonwealth	93.6	93.3	95.2	225	249	252
<i>Total</i>	<i>311.0</i>	<i>323.0</i>	<i>328.0</i>	<i>2,601</i>	<i>2,478</i>	<i>2,698</i>
<i>Foreign—</i>						
U.S.S.R., China, Eastern Europe (c)	200.0	189.0	205.0	829	895	981
Argentina	45.2	45.7	46.0	388	409	421
United States of America	31.3	30.8	31.3	307	293	293
Uruguay	23.0	24.0	24.0	190	200	175
Other Foreign	284.5	283.5	284.7	764	745	752
<i>Total</i>	<i>584.0</i>	<i>573.0</i>	<i>591.0</i>	<i>2,478</i>	<i>2,542</i>	<i>2,622</i>
<i>Grand Total</i>	<i>895.0</i>	<i>896.0</i>	<i>919.0</i>	<i>5,079</i>	<i>5,020</i>	<i>5,320</i>
Type of Wool.						
<i>Apparel Type—</i>						
Merino .. ..	..	..	..	2,040	2,033	2,203
Crossbred .. ..	..	..	..	1,920	1,823	1,930
Carpet type .. ..	..	..	..	1,119	1,164	1,187

(a) Provisional. (b) Basutoland and S.W. Africa Territory excluded from sheep population, but included in wool production. (c) Comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, Eastern Germany, Hungary, Mongolia, Poland, Romania, Tibet and U.S.S.R.

8. **War-time Contracts.**—(i) *Wool.* Details of the contract entered into between the Governments of Australia and the United Kingdom for the purchase of the surplus wool clip of Australia for the duration of the war and one full clip thereafter (1939–40 to 1945–46) will be found in Official Year Book No. 36, page 1106.

(ii) *Sheepskins.* Details of the war-time contract arrangements for the period April, 1940, to June, 1946, between the Australian and United Kingdom Governments for the purchase of Australia's exportable surplus of woolled sheepskins will be found in Official Year Book No. 37, page 875.

9. **Australian Wool Realization Commission.**—The Australian Wool Realization Commission was the Australian subsidiary of a Joint Organization (commonly referred to as "J.O.") set up by the Governments of the United Kingdom, the Commonwealth of Australia, the Dominion of New Zealand and the Union of South Africa, under the title of "U.K.—

Dominion Wool Disposals Limited " to dispose of accumulated war-time stocks of Dominion wool held by the United Kingdom Government at the end of the war. Details of the functions and operations of these organizations appear in earlier issues of the Year Book, particularly No. 38, pages 919-923.

By the end of 1951, the Joint Organization had disposed of all stocks of wool held and shortly afterwards it went into voluntary liquidation. Liquidation proceedings were completed on 15th February, 1954.

Australia's share of the profits arising from the operations of J.O. amounted to approximately £93 million (including interest). The task of distributing the profits to growers was entrusted to the Australian Wool Realization Commission. Due to some protracted litigation, known as the "Poulton Case" (see Official Year Book No. 45, p. 947), final distribution was not effected until 1959.

A residue of £2.4 million, representing unclaimed moneys, was paid to the Wool Research Trust Fund, under the terms of the Wool Realization (Distribution of Profits) Act, 1957.

10. Australian Wool Bureau.—(i) *General.* The Australian Wool Bureau was constituted under the Wool Use Promotion Act 1953 and replaced the Australian Wool Board which was established in 1936. The Bureau's main function is to promote the use of wool by publicity and other means in Australia and overseas.

The Bureau consists of seven members appointed by the Governor-General for a term of three years. Of the seven members, three represent the Australian Wool and Meat Producers' Federation, three the Australian Woolgrowers' Council and the other member is nominated by the Commonwealth Government.

Particulars of the activities of the Bureau are given in para. 12, Wool Publicity and Research.

(ii) *Wool Statistical Service.* The Wool Statistical Service, formerly conducted by the Australian Wool Realization Commission, was taken over by the Australian Wool Bureau on 23rd October, 1953. The Statistical Service is responsible for the preparation and publication of statistical material relating to the Australian wool market and the composition of the Australian clip and other special statistical work which may be assigned to it.

It is financed out of the income received by the Australian Wool Bureau from wool stores under its control and from an annual contribution by the Commonwealth Government.

A Statistical Service Committee, consisting of representatives of the Australian Wool Bureau, the Commonwealth Government, wool buyers, wool growers and wool selling brokers' organizations, acts in an advisory capacity to the Australian Wool Bureau.

(iii) *Wool Stores.* Some three hundred wool stores, formerly the property of the Joint Organization and purchased from it by the Commonwealth Government, were transferred to the ownership of the Australian Wool Bureau by virtue of the Wool Stores Act 1953. The Bureau formally assumed control of these stores on 11th January, 1954, and at the same time received a substantial sum of money representing accumulated rentals and receipts from sales which had come to hand while the stores were held by the Commonwealth Government. Under the Act, the Bureau may dispose of these stores only with the permission of the Minister for Primary Industry and, in the event of war, may be required to return the stores without compensation to the Commonwealth Government. The stores are let by the Wool Bureau as a commercial proposition. The rental income is used to meet the expenses of maintaining, managing and insuring the stores, to defray the cost of operating the Wool Statistical Service and to help finance the wool promotion activities of the Bureau.

(iv) *The Contributory Charge.*—Associated legislation, namely, the Wool (Contributory Charge) Act 1945 (subsequently replaced by the Wool (Contributory Charge) Act (No. 1) 1950-1951 and the Wool (Contributory Charge) Act (No. 2) 1950-1951) and the Wool (Contributory Charge) Assessment Act 1945-1951 provided for a contributory charge to be imposed on woolgrowers on all shorn wool produced in Australia and sold after a date fixed by proclamation. The passage of amending Wool Tax legislation in June, 1952, made it possible to cease collection of the contributory charge at 30th June, 1952, and the legislation under which it was imposed was repealed. Further particulars of the Wool Contributory Charge and the amounts collected appear in Year Book No. 40, pages 675 and 819.

(v) *The Wool Levy.* While the contributory charge legislation, mentioned above, was in force, the Wool Levy, which was imposed by the Wool Tax Act 1936-1945 and the Wool Tax Assessment Act 1936, was temporarily suspended. When the Wool Levy was first imposed in 1936, the rate of tax on woolgrowers was 6d. a bale on all shorn wool produced in Australia and sold. The proceeds were paid into the Wool Publicity and Research Fund administered by the Australian Wool Board.

When collection of the contributory charge ceased (i.e., from 1st July, 1952), the Wool levy again became operative but at a higher rate. This rate was provided for in the Wool Tax Acts (Nos. 1 and 2) of 1952 under which a rate was prescribed between limits of 2s. and 5s. a bale on shorn wool produced in Australia and sold.

From 1952-53, the rate prescribed was 4s. a bale. The Wool Tax Acts (Nos. 1 and 2) of 1952 were repealed in May, 1957, and replaced by the Wool Tax Acts (Nos. 1 and 2) of 1957. The 1957 Acts maintained the levy on woolgrowers for wool promotion within the limits of 2s. to 5s. a bale on shorn wool produced in Australia and sold. In addition, provision was made under the 1957 Acts for woolgrowers to be levied at a maximum rate of 2s. a bale for wool research. The operative rates prescribed are 4s. a bale for wool promotion purposes and 2s. a bale for wool research.

11. *Marketing of Wool.*—(i) *Minimum Reserve Price Plan.* Details of the minimum reserve price plan which was completed by the Governments of Australia, New Zealand, South Africa and the United Kingdom in May, 1951, and which was rejected at a referendum of woolgrowers in Australia in September, 1951, will be found in Official Year Book No. 39, page 925.

(ii) *Subsidy on Woollen Goods, 1950-51.* Details of the subsidy paid on woollen goods manufactured for consumption in Australia from wool sold during the 1950-51 season will be found in Official Year Book No. 41, page 727.

12. *Wool Publicity and Research.*—(i) *Wool Use Promotion.* The Wool Use Promotion Act 1953-1957, defines the powers and functions of the Australian Wool Bureau as including measures for promoting, by publicity or other means, the use of wool in Australia or in other countries.

The Bureau is authorized also to take measures for improving the production of wool in Australia and encouraging research directed to the promotion of the use of wool.

The Bureau is associated with the New Zealand Wool Board and the South African Wool Board in maintaining the International Wool Secretariat, which was established in 1937 with head-quarters in London and with branches in fourteen countries. The function of the Secretariat is to promote the use of wool through a broad programme of publicity, education and research.

The activities of the Australian Wool Bureau are financed from the Wool Use Promotion Fund into which are paid the proceeds of the Wool Levy, and contributions from the rental income of the wool stores as mentioned in 10 (iii) above.

(ii) *Research.* Until 1945, the Australian Wool Board was responsible for the supervision of economic and scientific research but in that year the Commonwealth Scientific and Industrial Research Organization was made responsible for scientific, technical and biological research into sheep raising and wool production, as well as wool textile research. Economic wool research is the responsibility of the Bureau of Agricultural Economics, a division of the Commonwealth Department of Primary Industry. The economic research work falls into two main categories, namely, farm production economics dealing with economics of wool growing and sheep-station management generally, and commodity research dealing with the economic aspects of the wool industry in Australia and of wool as a commodity in world trade.

To finance the research programme, the Wool Research Trust Account was established under the Wool Use Promotion Act in 1945. Originally, a sum equal to the amount raised by the Wool Levy was paid annually by the Commonwealth Government into this account from Consolidated Revenue. The Wool Use Promotion Act 1953 fixed the rate of contribution at 2s. for each bale of shorn wool produced in Australia as from 1st July, 1952.

In addition, finance was available for research from the Wool Industry Fund. This Fund was established in 1946 from various moneys accumulated by the Central Wool Committee in war-time.

Under the Wool Research Act 1957, these sources of income together with an increased Government contribution totalling 4s. a bale, effective from 1st July, 1957, and a contribution of 2s. a bale from woolgrowers, effective from 1st July, 1957, collected under the Wool Tax Acts 1957, were combined into one fund known as the Wool Research Trust Fund. The use of this Fund is limited to sheep and wool research and expenditure therefrom is based on the recommendations of the Wool Research Committee. This committee comprises representatives of the C.S.I.R.O., the Universities, the Department of Primary Industry, Wool-growers' Organizations, the Australian Wool Bureau, and Textile Manufacturers.

Opportunity is afforded for co-operation with State Departments of Agriculture and other organizations in research and extension activities by the inclusion on the Committee of a representative of the Australian Agricultural Council in the capacity of an observer.

(iii) *The Australian Wool Testing Authority.*—The Australian Wool Testing Authority Act 1957 assented to on 12th September, 1957, constituted the Australian Wool Testing Authority, comprised of representatives of wool buyers, wool selling brokers, wool processors, the Australian Wool Bureau, the C.S.I.R.O. and the Commonwealth Government. It is intended that ultimately the Authority should be self-financing, but during the preliminary stages, the Commonwealth Government is providing the initial capital by way of a loan.

The function of the Authority is to provide a service in Australia for carrying out various tests on wool and wool products, particularly with regard to the moisture content of scoured and carbonized wool. Testing on a commercial basis commenced in September, 1958.

In February, 1959, the Authority was notified by the International Wool Textile Organization that it would be included in the organization's list of official wool testing establishments. This is the standard of international recognition for wool testing houses and gives the Australian Wool Testing Authority the same standing as similar organizations in other countries.

13. *Consumption of Wool.*—(i) *Consumption of Raw Wool.* Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonized wool used on the woollen and worsted systems (mill consumption) plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects as they disregard oversea trade in semi-processed wool (e.g., tops and yarns) as well as woollen goods. They are, however, comparatively simple to calculate and are useful in providing an approximate indication of trends in wool consumption. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia, are shown below for the years 1954–55 to 1958–59.

ESTIMATED CONSUMPTION OF RAW WOOL IN AUSTRALIA.

('000 lb.)

Year.	Greasy Basis.			Clean Basis.		
	Used on Woollen and Worsted Systems.	Used for Felt Manu- facture (including Hats).	Total.	Used on Woollen and Worsted Systems.	Used for Felt Manu- facture (including Hats).	Total.
1954–55	82,923	7,552	90,475	48,930	3,587	52,517
1955–56	92,374	7,586	99,960	54,847	3,603	58,450
1956–57	108,255	5,218	113,473	65,504	2,479	67,983
1957–58	103,704	4,480	108,184	63,153	2,128	65,281
1958–59	103,180	3,192	106,372	62,834	1,516	64,350

(ii) *Consumption of Locally Processed Wool.* As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series entitled "Consumption of Locally Processed Wool" provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown below

for the years 1954-55 to 1958-59. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for oversea trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA

('000 lb.)

Year.	Greasy Basis.				Clean Basis.			
	Worsted Yarn Used. (a)(b)	Woollen Yarn Used. (b)	Scoured Wool used for Felt Manufacture (including Hats).	Total.	Worsted Yarn Used. (a)(b)	Woollen Yarn Used. (b)	Scoured Wool used for Felt Manufacture (including Hats).	Total.
1954-55 ..	41,056	26,599	7,552	75,207	23,775	16,299	3,587	43,661
1955-56 ..	43,041	27,837	7,586	78,464	25,176	17,014	3,603	45,793
1956-57 ..	44,325	30,093	5,218	79,636	26,172	18,737	2,479	47,388
1957-58 ..	40,716	32,288	4,480	77,484	23,992	19,324	2,128	45,444
1958-59 ..	38,040	29,424	3,192	70,656	22,730	18,462	1,516	42,708

(a) Includes hand knitting yarns used.
of wool and other fibres.

(b) Includes wool content of yarns containing a mixture

14. Exports of Wool.—(i) *Greasy—Quantities.* Prior to the 1939-45 War, Australian greasy wool exported overseas was sent principally to the United Kingdom and other European countries. In 1938-39, 42 per cent. of total shipments were sent to the United Kingdom, other important consignees being France, 20 per cent., Belgium, 13 per cent., and Japan, 9 per cent. During the 1939-45 War, exports to the United States of America showed great expansion but have since dwindled to about 2 per cent. Of the total shipments in 1958-59, 26 per cent. went to the United Kingdom, 23 per cent. to Japan, 13 per cent. to France, 10 per cent. to Italy and 9 per cent. to Belgium-Luxembourg. The following table shows the quantities of greasy wool exported, and the principal countries of recorded destination.

EXPORTS OF GREASY AND SLIPE WOOL.

('000 lb. actual weight.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	299,571	275,573	306,504	251,305	305,968
Other Commonwealth Countries ..	9,973	9,315	12,246	8,643	10,803
Japan	124,718	189,852	233,036	203,988	273,503
France	159,764	199,797	215,150	179,480	157,871
Italy	89,457	93,266	123,438	130,062	113,156
Belgium-Luxembourg	90,078	93,668	105,963	102,197	103,261
Germany, Fed. Rep. of	64,779	74,945	82,897	66,117	60,070
United States of America	58,962	48,059	37,454	21,235	28,299
Other Foreign Countries	65,371	82,347	92,509	119,279	134,138
Total	962,673	1,066,822	1,209,197	1,082,306	1,187,069

(ii) *Scoured and Washed and Carbonized—Quantities.* The exports of "scoured and washed" wool, whether carbonized or not, are shown below according to principal countries of destination.

EXPORTS OF WOOL—SCOURED AND WASHED AND CARBONIZED.
(‘000 lb. actual weight.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	26,227	24,303	24,298	19,525	24,597
Canada	4,120	5,356	3,220	3,901	4,803
Other Commonwealth Countries ..	1,098	1,285	1,538	1,857	1,977
United States of America ..	16,866	16,919	13,294	13,575	14,815
Germany, Fed. Rep. of ..	5,818	8,329	10,583	12,252	8,699
Italy	4,657	6,017	7,671	7,405	7,117
Japan	836	2,428	3,943	720	4,325
France	5,994	5,309	6,245	6,205	3,732
Belgium-Luxemburg ..	5,127	3,601	4,017	2,734	1,754
Other Foreign Countries ..	11,476	11,397	15,928	20,068	18,775
Total	82,219	84,944	90,737	88,242	90,594

(iii) *Tops, Noils and Waste.* Particulars of the exports of tops, noils and waste are shown in the following table.

EXPORTS OF WOOL TOPS, NOILS AND WASTE.
(‘000 lb. actual weight.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Tops	5,911	11,107	14,949	16,921	20,203
Noils	3,625	4,507	4,578	3,298	4,355
Waste—Soft wool	2,238	7,094	14,697	3,484	7,744
Hard wool	3,928	3,617	4,428	3,195	4,388

(iv) *Total Exports—Greasy and Clean Bases.* The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1954-55 to 1958-59.

EXPORTS OF WOOL—GREASY AND CLEAN BASES.
(‘000 lb.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
GREASY BASIS.					
<i>Raw Wool—</i>					
Greasy and Slips	963,583	1,067,654	1,209,840	1,082,724	1,187,399
Scoured and Washed	154,838	158,774	171,848	164,019	169,021
Carbonized	64,329	69,377	69,144	83,019	92,308
Exported on Skins					
Total	1,182,750	1,295,805	1,450,832	1,329,762	1,448,728
<i>Semi-processed Wool—</i>					
Tops	10,403	19,993	27,058	30,627	36,365
Yarn	229	123	149	158	128
Total	1,193,382	1,315,921	1,478,039	1,360,547	1,485,221
CLEAN BASIS.					
<i>Raw Wool</i>	667,347	741,653	841,371	760,229	827,418
<i>Semi-processed Wool</i>	6,160	11,510	16,080	18,364	20,882
Total	673,507	753,163	857,451	778,593	848,300

(v) *Total Value of Exports.* The value of wool (other than wool on sheepskins) exported from Australia during the five years ended 1958–59 averaged 46 per cent. of the total value of exports of merchandise of Australian origin, and during 1958–59 the proportion was 38 per cent. The value for the five years ended 1958–59 together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS(a).
(£'000.)

Country to which Exported.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
United Kingdom	107,917	83,096	117,372	79,582	73,101
Other Commonwealth Countries ..	6,839	8,060	9,920	8,026	7,771
Japan	46,077	64,761	103,770	74,301	68,923
France	50,473	53,388	73,494	52,831	34,162
Italy	32,379	29,259	47,905	41,703	28,181
Belgium-Luxemburg	25,620	21,391	29,608	22,130	16,479
Germany, Fed. Rep. of	22,926	23,603	32,987	24,592	15,417
United States of America	29,801	21,636	20,705	12,864	11,270
Other Foreign Countries	31,076	32,335	47,964	57,368	46,939
Total	353,108	337,529	483,725	373,397	302,243

(a) Excludes wool exported on sheepskins.

15. *Local Sales of Wool.*—Auction sales are conducted at Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Albany, Hobart and Launceston, and are attended by buyers representing manufacturers and merchants in the United Kingdom, France, the United States of America, Japan, U.S.S.R. and many other countries. More than 95 per cent. of the Australian wool clip is now disposed of at auction in Australia.

16. *Stocks of Wool.*—Stocks of raw wool held in Australia at 30th June, 1959, amounted to 269.5 million lb. (as in the grease) of which 73.0 million lb. (51.5 million lb. as greasy and 21.5 million lb. as scoured and carbonized) were held by woollen mills, wool scourers and fellmongers, and 196.5 million lb., assumed to be all greasy, were held by brokers. Of the wool held by brokers, 33.9 million lb. were unsold wool and 162.6 million lb. were sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

17. *Price.*—Wool is the chief factor in the pastoral wealth of Australia and the nation's prosperity is largely dependent upon its satisfactory sale. During the five years ended 1958–59, the price of greasy wool sold in the selling centres of Australia averaged 64.5d. per lb. compared with the average selling price of 11.5d. per lb. during the ten years ended 1938–39. The average for the nine years ended 1928–29 was 18d. per lb., and for the seven years ended 1913–14, 9d. per lb.

As indicated in para. 8 above, the price of wool during the 1939–45 War was determined by the British Government wool contract. With the return to auction sales since 1945–46, the average price of greasy wool sold rose rapidly from the contract price of 15.45d. per lb. applicable in 1945–46 to the unprecedented level of 144.19d. per lb. in 1950–51. This was followed by a sharp fall and prices, in the years 1951–52 to 1957–58, fluctuated in the range 61d. to 82d. while in 1958–59 they fell to 48.6d., the lowest for ten years.

The prices quoted above, except for United Kingdom contract prices, are as compiled by the National Council of Wool Selling Brokers and represent the average price realized for all greasy wool, of whatever type or quality, marketed during the years indicated.

18. *Value.*—Fluctuation in Australian wool prices has a marked effect on the nation's rural income. In 1945–46, the gross value of wool production was £58,597,000 representing 17.4 per cent. of the gross value of all rural industries, while in 1950–51, when prices reached a peak, wool was valued at £651,902,000 or 55.6 per cent. of the total for all rural industries. The value of wool production fell in subsequent years and in 1958–59 was £311,415,000.

Details of the value of wool production for the years 1954-55 to 1958-59 are shown below.

WOOL—ESTIMATED GROSS VALUE OF TOTAL PRODUCTION.(a)
PRODUCTION.(a)
(£'000.)

Season.	N.S.W.	Vic.	Qld.	S. Aust.	W.Aust.	Tas.	N.T.(b)	A.C.T.	Aust.
1954-55 ..	155,335	75,125	52,109	41,602	35,013	7,232	68	654	367,138
1955-56 ..	149,128	69,020	53,134	39,911	35,881	6,190	92	708	354,064
1956-57 ..	217,124	97,659	77,522	57,289	46,965	9,974	106	976	507,615
1957-58 ..	143,337	76,255	53,836	42,354	39,209	7,742	67	606	363,406
1958-59 ..	134,764	59,471	45,075	33,797	30,915	6,844	36	513	311,415

(a) Includes shorn, dead and fellmongered wool and wool exported on skins. Excludes distribution of profits under the Wool Disposal Plan. (b) Estimated.

19. **United Kingdom Importation of Wool.**—The important position which Australia occupies in the supply of wool to the United Kingdom is indicated in the following statement of the quantities of wool imported into that country from the principal wool-producing countries during each year 1955 to 1959.

WOOL(a): IMPORTS INTO UNITED KINGDOM.
(‘000 lb.)

Country of Origin.	1955.	1956.	1957.	1958.	1959.
Australia	336,800	310,585	315,310	292,407	334,124
New Zealand	185,440	163,550	166,050	168,241	171,027
Union of South Africa	64,315	61,194	45,563	52,594	65,005
India and Pakistan	30,505	25,912	29,889	22,717	25,450
Other Commonwealth Countries	9,785	9,583	11,410	9,671	10,455
Argentina	31,553	32,740	32,484	29,088	55,035
France	18,092	22,228	16,657	18,727	23,568
Uruguay	18,855	34,373	17,448	23,353	15,067
Other Foreign Countries	25,977	39,156	40,536	41,791	52,631
<i>Total Quantity</i> ..	<i>721,322</i>	<i>699,321</i>	<i>675,347</i>	<i>658,589</i>	<i>752,362</i>
Total Value (£'000 sterling) ..	176,995	167,927	188,754	134,001	147,257

(a) Greasy and Scoured.

Australian wool represented 44 per cent. of the total quantity imported into the United Kingdom during 1959. New Zealand supplied 23 per cent. and South Africa 9 per cent., while the total quantity received from British Commonwealth countries constituted 80 per cent. of all United Kingdom imports of wool.

20. **Principal Importing Countries and Sources of Supply.**—The following table, prepared from information published by the Commonwealth Economic Committee, furnishes, in respect of the principal importing countries, details of their production and imports of wool for 1958 together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured except in the case of the United States of America where estimated clean content of raw wool is quoted.

WOOL: PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1958.
(Million lb.)

Importing Country.	Pro- duction of Importing Country. (a)	Quantity Imported from— (b)					Total Imports.
		Australia.	New Zealand.	Union of South Africa.	Argen- tina.	Other Countries.	
United Kingdom ..	114	292.4	168.7	52.6	29.2	116.3	659.2
Belgium	(c)	107.0	24.7	8.5	6.7	13.7	160.6
France	56	168.6	88.6	39.1	20.4	21.3	338.0
Germany (Federal Republic) ..	(c)	74.4	27.1	26.3	8.3	46.7	182.8
Italy	32	121.7	20.3	22.1	5.9	43.5	213.5
Japan	(c)	222.8	16.0	7.6	17.8	9.5	273.7
United States of America(d) ..	293	25.5	44.8	14.0	52.2	53.1	189.6

(a) As in the grease, 1957-58. (b) Actual weight of greasy and scoured wool. (c) Not available. (d) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 273.6 million lb.

As a considerable transit trade exists between continental countries, it must not be assumed that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom (12 per cent. of total imports re-exported in 1958) and Belgium.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported. The value of cattle and horse hides, sheep and other skins, and skin pieces, sent overseas during 1958-59 amounted to £23,572,000 compared with a total of £25,393,000 in 1957-58 and £24,269,000 in 1956-57.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool constitute the most important item in the values referred to in the preceding paragraph. Of the total exports of £14,768,000 during 1958-59, France obtained 76 per cent. and the United Kingdom nine per cent. The exports of sheepskins with wool during each of the years 1954-55 to 1958-59 were as follows:—

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number '000	14,841	14,891	14,239	19,441	20,180
Value £'000	15,569	15,268	19,438	20,219	14,768

3. **Sheepskins without Wool.**—Up to 1943-44, sheepskins without wool were exported chiefly to the United States of America. During 1943-44, that country accounted for 97 per cent. of the total shipments. In subsequent years, however, there has been a decline in shipments to the United States of America and an increase in the quantities shipped to other countries. Of the total value of £432,000 of sheepskins without wool exported in

1958-59 the United States of America received 66 per cent., France received nine per cent. and the United Kingdom 16 per cent. Quantities and values for the five years 1954-55 to 1958-59 are shown in the table hereunder:—

EXPORTS OF SHEEPSKINS WITHOUT WOOL: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number '000	2,147	1,771	1,353	813	2,082
Value £'000	372	424	479	232	432

4. *Hides.*—(i) *Exports.* The export trade in cattle hides and calfskins during 1958-59 was distributed as follows:—Japan, £2,948,000; Federal Republic of Germany, £901,000; United States of America, £847,000; The Netherlands, £684,000; Italy, £353,000; United Kingdom, £255,000; Sweden, £154,000 and other countries, £348,000.

The exports during each of the five years 1954-55 to 1958-59 are shown in the table below:—

EXPORTS OF CATTLE HIDES AND CALFSKINS: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity '000 lb.	33,817	45,981	45,111	50,557	85,324
Value £'000	1,874	2,722	2,524	3,240	6,490

Horse hides exported during 1958-59 weighed 1,595,326 lb. and were valued at £99,091.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the chief sources of supply being New Zealand and the Pacific Islands. The quantities and values of cattle hides including calfskins, imported into Australia during the years 1954-55 to 1958-59, were as follows:—

IMPORTS OF CATTLE HIDES AND CALFSKINS: AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity cwt.	12,391	10,537	11,064	9,366	8,301
Value £'000	108	58	66	67	58

5. *Furred Skins.*—The exports of furred skins were valued as follows:—

**EXPORTS OF FURRED SKINS: AUSTRALIA.
(£'000.)**

Description.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Rabbit and Hare	1,100	1,711	975	913	1,291
Opossum	42	15	53	91	..
Kangaroo and Wallaby ..	281	285	279	350	188
Other	7	2	6	11	1
Total	1,430	2,013	1,313	1,365	1,480

These skins were shipped principally to the United States of America, the United Kingdom, and Belgium and Luxemburg, the values shipped to each in 1958-59, with 1957-58 values in parentheses, being:—United States of America, £1,181,000 (£1,047,000); United Kingdom, £220,000 (£203,000) and Belgium-Luxemburg, £40,000 (£33,000).

6. **Marketing of Hides and Skins.**—(i) *Sheepskins with Wool.* Details of the agreement between the United Kingdom and Commonwealth Governments for the purchase by acquisition of the "exportable surplus" of woolled sheepskins in Australia during the 1939-45 War were given in Official Year Book No. 37, page 886. The contract expired on 30th June, 1946, and sheepskins have since been marketed mostly at open auction.

(ii) *Sheep and Lamb Pelts.* Details of the marketing control of sheep and lamb pelts were given in Official Year Book No. 38, page 930. Pelts have reverted to open marketing without export restrictions.

(iii) *Hides and Leather.* A hide acquisition and marketing scheme operated from November, 1939 to August, 1954. The Australian Hide and Leather Industries Board, which administered the scheme, acquired all cattle hides and yearling and calf skins produced in Australia at set prices and allocated them to tanners at these prices. Further details of the war-time operations of the scheme will be found in Official Year Book No. 37, page 887 and Official Year Book No. 38, pages 930-1.

Pre-war, about 40 to 45 per cent. of Australian production of cattle hides and calf skins was exported but, with the development of the local tanning industry, the proportion is now approximately 30 per cent.

(iv) *Rabbit Skins.* A marketing control scheme for rabbit skins was introduced under the National Security (Rabbit Skins) Regulations on 10th June, 1940, and terminated in April, 1949. Details of the scheme will be found in Official Year Book, No. 38, page 931..

§ 7. Tallow and Lard.

1. **Consumption of Tallow in Factories.**—Details of consumption are collected from the principal factories using tallow.

Consumption of inedible tallow in factories (soap and candle, chemical and woolscouring works) are shown in the following table. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

INEDIBLE TALLOW : CONSUMPTION IN FACTORIES, AUSTRALIA.

(cwt.)

Year.	Quantity Used.	Year.	Quantity Used.
1954-55	1,193,368	1957-58	1,280,984
1955-56	1,210,694	1958-59	1,216,668
1956-57	1,207,578		

2. **Exports of Tallow and Lard.**—Particulars of exports of edible (including lard) and inedible tallow are shown in the following table for the five years 1954-55 to 1958-59:—

TALLOW AND LARD: EXPORTS, AUSTRALIA.

(cwt.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Edible(a)	74,401	142,498	128,649	130,817	104,646
Inedible	365,985	829,403	936,951	878,060	1,022,844
Total	440,386	971,901	1,065,600	1,008,877	1,127,490

(a) Including lard and sweetened fats.

3. **Marketing of Tallow.**—Until 30th September, 1952, the bulk of Australia's exportable surplus tallow, other than collar white mutton tallow was sold to the United Kingdom Ministry of Food under a series of annual contracts. The 1951–52 contract was not renewed and on 9th November, 1952, tallow export control was removed following termination of the industry's equalization pool arrangement and price de-control in most States.

§ 8. Exports of Principal Pastoral Products.

The quantities and values of the principal pastoral products of Australia exported for the years 1956–57 to 1958–59 were as follows:—

EXPORTS OF PASTORAL PRODUCTS: AUSTRALIA.

Product.	Unit of Quantity.	Quantity.			Value (£'000.)		
		1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Animals (living)—							
Cattle	No.	18,360	23,941	13,900	754	933	493
Horses	"	682	770	349	326	339	222
Sheep	"	129,480	122,628	135,720	482	466	393
Bones	'000 cwt.	20	12	13	47	24	19
Glycerine	'000 lb.	1,011	673	2,850	57	44	210
Hair and Bristles	cwt.	2,299	2,147	2,658	151	128	90
Hoofs	"	10,936	10,533	9,072	23	20	15
Horns	"	9,104	8,475	15,321	81	58	66
Meats—							
Frozen Beef and Veal(a)	'000 lb.	334,646	282,004	510,320	23,271	21,570	55,494
" Mutton and Lamb	"	76,274	106,622	165,841	6,095	8,385	14,002
" Rabbits and Hares	Value only	..	..	..	2,513	2,802	3,051
" Other .. .. .	"	..	..	..	3,202	3,457	5,461
Preserved in Tins, etc.	'000 lb.	112,193	131,834	127,050	13,175	15,100	15,434
Other (excluding Bacon and Ham)	Value only	..	..	..	849	1,148	1,405
Sausage Casings .. .. .	"	..	..	..	1,700	2,615	2,224
Hides and Skins—							
Cattle and Calf	'000 lb.	45,111	50,557	85,324	2,524	3,240	6,490
Horse	"	1,940	2,220	1,595	117	125	99
Sheep and Lamb	'000.	15,592	20,254	22,262	19,917	20,451	15,200
Rabbit and Hare	'000 lb.	2,464	3,686	4,453	975	913	1,291
Tallow (Edible and Inedible)	cwt.	1,057,145	995,046	1,096,897	4,373	4,311	4,488
Wool—							
Greasy	'000 lb.	1,206,625	1,080,634	1,185,749	425,728	325,509	264,222
Scoured, Tops, Noils, Waste	"	131,961	116,813	128,604	57,997	47,888	38,021

(a) Includes chilled beef.

CHAPTER XXIV.

FARMYARD, DAIRY AND BEE PRODUCTS.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as £A f.o.b. port of shipment, except where otherwise indicated.

§ 1. Introduction.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this publication. It may be noted here that an increased and improved milk supply has resulted from the crossing of imported stud cattle with the original stock and from the further judicious crossing of strains. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter and, in certain districts, rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pastures and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Mixed Farming.**—Apart from specialized dairy farms, dairying is carried on fairly extensively on mixed farms. Originally, dairying on mixed farms was conducted mainly in conjunction with agriculture, but in more recent times it has been carried on also in conjunction with various types of grazing. In non-coastal regions, it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. The extent to which dairy cattle were run in conjunction with beef cattle, sheep, and pigs in 1955–56 is shown in the relevant tables published in a series of mimeographed bulletins *Size Classification of Rural Holdings 1955–56*, and also in summarized form in *Primary Industries, Part I.—Rural Industries, 1956–57*, Bulletin No. 51.

3. **Employment.**—The numbers of persons employed in rural industries are ascertained at the annual census of rural production. The particulars collected are in respect of those persons who were permanently engaged in the actual work of the farm and include owners, lessees, tenants or sharefarmers, relatives over 14 years of age not receiving wages, and other permanent employees, including managers and relatives, working for wages or salary. For some earlier years, and uniformly from March, 1950, particulars have been collected also of the numbers of temporary employees at 31st March of each year. Details of the numbers so engaged are given in Chapter XXII.—Agricultural Production, § 29.

Persons who described themselves at the population census as being engaged in dairy farming comprised 96,508 males and 10,018 females, a total of 106,526 persons at the Census of 30th June, 1947, and 100,553 males and 11,004 females, a total of 111,557 persons at the Census of 30th June, 1954.

4. **Growth of the Dairying Industry.**—The following table gives some indication of the growth of the dairying industry since 1918–19.

DAIRYING INDUSTRY: AUSTRALIA.

Year.	Number of Dairy Cows at 31st March.			Production of—			Milking Machines (No. of Stands). (a)
	In Milk.	Dry.	Total.	Milk for all Purposes.	Butter (Factory and Farm).	Cheese (Factory and Farm).	
				Million Gallons.	Tons.	Tons.	
1918-19 ..	1,319,588	582,448	1,902,036	529.6	81,162	10,621	(b)
1928-29 ..	1,744,728	600,342	2,345,070	815.4	129,817	13,490	(b)
1938-39 ..	2,600,707	608,812	3,209,519	1,189.9	203,500	29,304	(b)
1948-49 ..	2,339,885	818,725	3,158,610	1,208.9	165,830	43,202	144,916
1954-55 ..	2,338,658	943,485	3,282,143	1,325.8	191,078	45,193	196,877
1955-56 ..	2,393,870	1,009,637	3,403,507	1,402.0	208,911	38,700	204,298
1956-57 ..	2,354,301	1,097,149	3,451,450	1,357.9	192,854	45,216	210,664
1957-58 ..	2,393,870	1,080,003	3,361,574	1,264.4	175,757	35,976	213,716
1958-59 ..	2,363,569	919,578	3,283,147	1,371.2	193,568	43,503	216,287

(a) "Number of Stands" indicates the number of cows that can be milked simultaneously—i.e., the cow capacity of installed milking machines. (b) Not available.

5. **Official Supervision of Dairying Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of personnel and *matériel*, prevails.

The export trade is regulated by the terms of the Commonwealth Customs Act 1901-1954 and the Commonwealth Commerce (Trade Descriptions) Act 1905-1950, and regulations thereunder. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter, the goods are given a certificate by the inspector.

6. **Australian Agricultural Council.**—General information on the constitution and functions of the Australian Agricultural Council is given on page 888 of Chapter XXII.—Agricultural Production.

§ 2. Value of Farmyard, Dairy and Bee Production and Indexes of Price and Quantum of Production.

1. **Gross Value of Farmyard, Dairy and Bee Production, 1954-55 to 1958-59.**—The following table shows the gross value of recorded farmyard and dairy production at the principal markets in Australia:—

GROSS VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION: AUSTRALIA. (£'000.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Whole Milk used for—					
Butter(a)	67,801	78,559	66,991	61,252	66,328
Cheese(a)	9,218	8,585	9,398	7,399	10,120
Condensing, Concentrating, etc. . .	7,537	8,908	8,901	9,540	9,230
Other purposes	50,377	52,465	55,393	58,179	59,887
Subsidy Paid on Whole Milk for Butter and Cheese	16,081	14,499	13,500	13,500	13,500
<i>Total Whole Milk (including Subsidy)</i>	<i>151,014</i>	<i>163,016</i>	<i>154,183</i>	<i>149,870</i>	<i>159,065</i>
Pigs Slaughtered	21,263	25,543	25,948	25,032	25,553
Dairy Cattle Slaughtered	9,652	9,625	8,721	10,907	15,721
Eggs	40,650	42,137	43,567	42,320	40,397
Poultry	10,835	11,666	11,432	13,150	14,380
Honey	1,465	1,801	2,371	1,794	1,803
Beeswax	133	132	157	115	105
Total	235,012	253,920	246,379	243,188	257,024

(a) Excludes Commonwealth subsidy which is shown separately below.

2. Gross and New Values, 1958-59.—The values of dairy, poultry and bee farming production on gross, local and net bases are shown in the following table. Further information on values, including definitions of the terms used, is given in Chapter XXX.—Miscellaneous.

GROSS, LOCAL AND NET VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION 1958-59.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Farm Costs.		Net Value of Production. (b)
				Fodder Fed to Farm Stock.	Value of Other Materials Used in Process of Production. (a)	
New South Wales ..	90,421	12,391	78,030	12,567	(c) 386	65,077
Victoria ..	87,527	4,383	83,144	22,166	3,616	57,362
Queensland ..	36,537	1,870	34,667	7,074	1,480	26,113
South Australia ..	20,006	803	19,203	6,091	1,761	11,351
Western Australia ..	11,418	894	10,524	5,034	1,941	3,549
Tasmania ..	10,630	581	10,049	2,085	(c) 856	7,108
Northern Territory ..	99	4	95	16	..	79
Australian Capital Territory ..	386	19	367	95	2	270
Total ..	257,024	20,945	236,079	55,128	10,042	170,909

(a) No allowance has been made for costs of materials used in the process of production in the Poultry (for States other than Queensland) and Bee-farming Industries. (b) No deduction has been made for depreciation and maintenance. (c) No allowance has been made for costs of power, power kerosene, petrol and other oils.

3. Net Value of Production, 1954-55 to 1958-59.—In the following table, the net values of farmyard, dairy and bee production (total and per head of population) are shown by States.

NET VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION.(a)

Year.	N.S.W. (b)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(b)	Australia. (c)
NET VALUE. (£'000.)							
1954-55 ..	58,323	58,577	26,237	12,498	4,686	6,406	166,983
1955-56 ..	63,000	67,329	28,630	15,320	4,885	7,333	186,841
1956-57 ..	57,852	60,945	25,836	14,496	4,610	7,372	171,448
1957-58 ..	55,511	60,463	19,150	9,572	4,203	7,342	156,516
1958-59 ..	65,077	57,362	26,113	11,351	3,549	7,108	170,909

NET VALUE PER HEAD OF POPULATION. (£ s. d.)

1954-55 ..	16 17 2	23 10 10	19 16 0	15 9 6	7 4 5	20 9 4	18 7 4
1955-56 ..	17 17 7	26 5 1	21 3 4	18 7 2	7 6 0	22 19 6	20 1 3
1956-57 ..	16 2 6	23 1 8	18 14 4	16 16 7	6 14 8	22 12 0	17 19 8
1957-58 ..	15 3 5	22 6 8	13 12 11	10 16 0	6 0 4	21 19 6	16 1 3
1958-59 ..	17 9 4	20 13 4	18 6 3	12 10 3	4 19 1	20 16 7	17 3 6

(a) No deduction has been made for depreciation and maintenance or for costs of materials used in the process of production in the poultry (for States other than Queensland) and Bee-farming Industries. (b) No deduction has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

4. Indexes of Quantum and Price of Farmyard, Dairy and Bee Production, 1954-55 to 1958-59.—For details of the methods of calculating these indexes and of the weights used. *see* Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM^(a) AND PRICE OF FARMYARD, DAIRY AND BEE PRODUCTION: AUSTRALIA:

(Base: Average 3 years ended June, 1939 = 100.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Quantum(a) of Production—</i>					
Milk	116	123	119	111	120
Other Products	117	115	114	120	118
<i>Total Farmyard and Dairy ..</i>	<i>117</i>	<i>120</i>	<i>117</i>	<i>114</i>	<i>119</i>
Total per Head of Population	88	89	84	80	82
<i>Price—</i>					
Milk	370	380	365	375	372
Other Products	375	423	438	399	421
<i>Total Farmyard and Dairy ..</i>	<i>371</i>	<i>392</i>	<i>386</i>	<i>382</i>	<i>386</i>

^(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values of base year (1936-37 to 1938-39).

§ 3. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—Lack of uniformity in the schedules used by the various States in the collection of livestock statistics makes it impossible to measure with complete accuracy the growth of dairy herds prior to 1943. Statistics of dairy cows—which form the largest part of herds—are, however, available on a comparable basis for a series of years. These statistics show that in 1918-19 there were 1,902,036 dairy cows (in milk and dry), compared with 2,345,070 in 1928-29 and 3,209,519 in 1938-39. The numbers remained at this level until March, 1944, but declined in succeeding years and did not regain the level of 1944 until 31st March, 1954, when the number recorded was 3,258,674. Since then numbers have increased to a record level of 3,451,450 in March, 1957, and then fallen to 3,283,147 at 31st March, 1959. There is a preponderance of dairy cattle in Victoria and Tasmania while in New South Wales and South Australia the proportion of dairy to all cattle is high. In Queensland, the Northern Territory, and Western Australia, other cattle predominate, the main object in these areas being the production of beef. In South Australia, the proportion of dairy cattle has fallen in recent years. The numbers of dairy cows and other dairy cattle recorded in each of the States and the Australian Capital Territory for the years 1955 to 1959 are shown in the following table.

NUMBER OF DAIRY CATTLE.

State.		At 31st March.	Dairy Cows (in milk and dry).	Dairy Heifers 1 year and over.	Dairy Calves under 1 year.	Dairy Bulls.	Total Dairy Cattle.
New South Wales	..	1955	906,774	203,583	130,437	23,840	1,264,634
		1956	976,089	194,397	143,385	23,944	1,337,815
		1957	971,868	191,476	147,398	23,468	1,334,210
		1958	941,854	201,655	141,013	23,045	1,307,567
		1959	919,403	206,967	133,690	21,666	1,281,726
Victoria	..	1955	1,025,233	299,627	233,804	41,057	1,599,721
		1956	1,071,437	308,874	239,192	43,045	1,662,548
		1957	1,112,293	315,506	248,031	44,734	1,720,564
		1958	1,126,792	317,003	235,794	44,256	1,723,845
		1959	1,101,898	306,376	203,912	41,307	1,653,493
Queensland	..	1955	931,568	226,437	191,269	27,940	1,377,214
		1956	943,323	225,627	186,900	27,889	1,383,739
		1957	944,516	215,201	187,138	27,819	1,374,674
		1958	867,285	217,770	157,736	27,178	1,269,969
		1959	844,067	201,529	170,992	24,191	1,240,779
South Australia	..	1955	169,822	47,060	43,259	8,780	268,921
		1956	165,865	47,217	42,416	8,805	264,303
		1957	166,549	44,831	45,307	8,797	265,484
		1958	164,046	45,672	40,485	8,595	258,798
		1959	158,313	45,636	36,450	8,026	248,425
Western Australia	..	1955	134,696	39,708	47,991	5,850	228,245
		1956	134,517	38,894	44,704	5,469	223,584
		1957	134,478	37,924	46,271	5,388	224,061
		1958	134,239	38,135	48,099	5,178	225,651
		1959	129,980	37,290	43,355	4,744	215,369
Tasmania	..	1955	111,781	30,766	42,652	4,512	189,711
		1956	110,028	30,884	37,817	4,873	183,602
		1957	119,485	30,333	41,573	4,503	195,894
		1958	125,186	30,897	44,095	4,595	204,773
		1959	127,334	31,944	39,852	4,352	203,482
Australian Capital Territory		1955	2,269	304	600	49	3,222
		1956	2,248	311	554	44	3,157
		1957	2,261	349	603	50	3,263
		1958	2,172	275	614	45	3,106
		1959	2,152	374	459	31	3,016
Australia	..	1955	3,282,143	847,485	690,012	112,028	4,931,668
		1956	3,403,507	846,204	694,968	114,069	5,058,748
		1957	3,451,450	835,620	716,321	114,759	5,118,150
		1958	3,361,574	851,407	667,836	112,892	4,993,709
		1959	3,283,147	830,116	628,710	104,317	4,846,290

Maps showing the distribution of dairy cattle in Australia at 31st March, 1955 and 1948, appear on page 910 of Official Year Book No. 43 and page 906 of Official Year Book No. 39, respectively.

2. Size of Dairy Herds.—A series of special tabulations relating to rural holdings undertaken for all States for the year 1955–56, covered, *inter alia*, a classification of holdings by size of dairy cattle herd and by area of holding, area of sown grasses and clovers, size of sheep flock, size of beef cattle herd, size of pig herd and number of milking machine stands. The tabulations have been published in full detail in a series of mimeographed bulletins *Size Classification of Rural Holdings*, 1955–56, and also appear in summarized form in *Primary Industries, Part I.—Rural Industries*, 1956–57, Bulletin No. 51.

3. Total Dairy Production.—The dairy production for each State in 1958–59 is shown below:—

DAIRY PRODUCTION, 1958-59.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
MILK ('000 GALLONS).								
Used for—								
Butter ..	(a) 188,676	(b) 409,224	(c) 185,222	30,662	28,693	51,131	18	893,626
Cheese ..	10,746	37,715	18,625	24,280	2,614	920	..	94,900
Condensing and concentrating	14,912	53,545	54,327	28,096	20,860	14,127	{ .. 962	81,074
Other purposes	113,345	82,464						
Total ..	327,679	582,948	258,174	83,038	52,167	66,178	980	1,371,164

BUTTER (TONS).

In Factories ..	(d) 37,733	(e) 88,143	(f) 41,022	7,054	6,166	10,805	..	190,923
On Dairy and other Farms ..	1,395	540	312	135	63	196	4	2,645
Total ..	39,128	88,683	41,334	7,189	6,229	11,001	4	193,568

CHEESE (TONS).

In Factories ..	5,044	17,441	(f) 8,220	11,200	1,181	339	..	43,425
On Dairy and other Farms ..	..	32	..	..	10	36	..	78
Total ..	5,044	17,473	8,220	11,200	1,191	375	..	43,503

(a) Includes milk, the produce of New South Wales, sent as cream to factories in Victoria and Queensland. (b) Includes milk, the produce of Victoria, sent as cream to New South Wales. (c) Includes milk, the produce of Queensland, sent as cream to New South Wales. (d) Includes butter made from cream, the produce of Victoria and Queensland. (e) Includes butter made from cream, the produce of New South Wales. (f) Includes cheese made in establishments not classified as factories.

4. Whole Milk.—(i) *Production and Utilization.* During the five years ended 1938–39, approximately 80 per cent. of Australia's milk supply was used for making butter, 4 per cent. for cheese manufacture, 2 per cent. for condensery products and 14 per cent. for fluid consumption and other purposes. There has since been a considerable decline in the proportion of milk used for butter-making, with corresponding increases in the quantities used for other purposes. In 1958–59, 65 per cent. of the total milk supply was used for butter, 7 per cent. for cheese, 6 per cent. for condensery products and 22 per cent. for other purposes.

Details of the production of whole milk for various purposes are shown in the following table for each of the years 1954–55 to 1958–59:—

PRODUCTION AND UTILIZATION OF WHOLE MILK: AUSTRALIA.
(‘000 Gallons.)

Year.	Total. Production.	Quantity used for—			
		Butter (Factory and Farm).	Cheese (Factory and Farm).	Condensery Products.	Other purposes.
1954–55	1,325,799	886,652	98,569	64,365	276,213
1955–56	1,402,012	962,397	84,021	71,324	284,270
1956–57	1,357,942	890,833	98,233	78,123	290,753
1957–58	1,264,421	811,583	78,550	79,864	294,424
1958–59	1,371,164	893,626	94,900	81,074	301,564

In the following table, particulars of production of whole milk in the several States are shown for the years 1954-55 to 1958-59. Victoria is the principal milk-producing State and in 1958-59 the output from that State, 582.9 million gallons, represented 42 per cent. of total production. Output from New South Wales was 327.7 million gallons, or 24 per cent. of the total, and that of Queensland 258.2 million gallons (19 per cent.). Production in the remaining States accounted for 15 per cent. of the total Australian output.

TOTAL PRODUCTION OF WHOLE MILK.
(^{'000 Gallons.})

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1954-55 ..	315,719	536,835	275,605	90,699	54,194	52,022	725	1,325,799
1955-56 ..	333,942	577,475	282,296	90,342	55,668	61,405	884	1,402,012
1956-57 ..	306,298	587,199	252,336	89,882	57,008	64,262	957	1,357,942
1957-58 ..	288,565	565,439	210,827	80,606	53,480	64,655	849	1,264,421
1958-59 ..	327,679	582,948	258,174	83,038	52,167	66,178	980	1,371,164

(ii) *Production per Cow.* The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, varying greatly with breed, locality and season. For the whole of Australia, for all dairy cows and for all seasons prior to 1916, production averaged considerably less than 300 gallons per annum. In later years, not only has there been an improvement in the quality of the cattle, but the application of scientific methods has been continually extended, the 300-gallon average has been exceeded in each year since 1924 and more than 400-gallons per cow has been obtained in three of the last five years. In 1958-59, the average yield was 412 gallons. The annual average yields per cow shown in the following table are based on the approximate number of dairy cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of particulars of the total quantity of milk obtained during any year. In addition, there is the problem of ascertaining with reasonable accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend:—

AVERAGE MILK PRODUCTION PER DAIRY COW.
(Gallons.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1954-55 ..	345	533	294	543	403	485	314	405
1955-56 ..	355	551	301	538	414	554	391	419
1956-57 ..	314	538	267	541	424	560	424	396
1957-58 ..	302	505	233	488	398	529	383	371
1958-59 ..	352	523	302	509	395	524	453	412

5. *Factory System.*—(i) *General.* Cream separation and butter-making are often carried on together under the co-operative system. The establishment of large central butter factories either on the co-operative system or on an independent basis has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality and, whereas formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, factory butter requires less than 2½ gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory produced butter. As a result, the production of farm made butter has declined substantially and in 1958-59, represented only about 1.4 per cent. of all butter made. A similar position exists in the cheese-making industry where a negligible amount is now made on farms.

(ii) *Number of Factories.* In 1958-59, the factories in Australia for the manufacture of butter, cheese and condensed milk numbered 363 and were distributed among the States as follows:—New South Wales, 77, Victoria, 127, Queensland, 78, South Australia, 41; Western Australia, 19; and Tasmania, 21. More details regarding numbers of factories, output, etc., are given in Chapter VI.—Manufacturing Industry.

6. *Butter Production.*—There was a steady increase in the annual output of butter for many years prior to the 1939-45 War. The average annual production rose from 126,000 tons for the five years ended 1928-29 to 195,000 tons for the five years ended 1938-39.

Following the record output of 211,987 tons in 1939-40, the general trend of butter production declined until 1946-47, when 143,308 tons were produced. Output increased again in subsequent years and in 1955-56 was 208,911 tons, the highest figure recorded in post-war years. Production declined in the two following years but in 1958-59 had increased again to 193,568 tons. The foregoing figures include butter produced on farms which has shown a decline from 8,714 tons in 1938-39 to 2,645 tons in 1958-59.

The following table shows production of butter in factories in each State for the years 1954-55 to 1958-59:—

BUTTER PRODUCTION IN FACTORIES.
(Tons.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)
1954-55	38,688	79,418	45,915	8,510	7,145	8,334	188,010
1955-56	41,066	90,608	48,189	8,562	7,404	9,962	205,791
1956-57	33,826	88,598	41,089	8,440	7,462	10,426	189,841
1957-58	29,939	86,236	32,281	7,032	6,807	10,623	172,918
1958-59	37,733	88,143	41,022	7,054	6,166	10,805	190,923

(a) Northern Territory and Australian Capital Territory: nil.

The table below shows the monthly production of factory butter in Australia in each of the years 1954-55 to 1958-59. The annual output of farm butter is also shown.

PRODUCTION OF BUTTER IN FACTORIES AND ON FARMS: AUSTRALIA.
(Tons.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Factories—</i>					
July	6,917	8,479	9,242	7,591	7,941
August	10,903	13,277	13,775	11,284	11,419
September	16,288	18,197	17,294	16,883	17,543
October	21,819	24,311	24,207	21,219	23,292
November	25,011	26,166	24,431	22,988	22,859
December	24,715	25,276	24,087	20,728	24,517
January	19,681	23,919	22,166	17,407	22,511
February	16,598	20,036	16,332	14,940	17,049
March	16,658	15,887	14,158	14,624	15,622
April	12,358	12,329	10,523	10,519	11,972
May	9,435	9,845	7,727	7,859	8,842
June	7,627	8,069	5,899	6,876	7,356
<i>Factory Total(a)</i>	188,010	205,791	189,841	172,918	190,923
<i>Made on Farms(b)</i>	3,068	3,120	3,013	2,839	2,645
Grand Total	191,078	208,911	192,854	175,757	193,568

(a) Year ended June.

(b) Year ended March.

7. Cheese Production.—Until 1916, the annual production of cheese in factories and on farms had not reached 10,000 tons. From 1916 to 1932-33, it ranged between about 10,000 and 16,000 tons, rising in subsequent years with some reversals of trend to an output of 44,796 tons in 1949-50. Production decreased in 1950-51 and 1951-52 but by 1953-54 had risen to a record output of 49,057 tons. Production has fluctuated in succeeding years between 35,000 and 45,000 tons, 43,503 tons being recorded in 1958-59.

The following table shows production of cheese in factories in each State in the years 1954-55 to 1958-59:—

CHEESE PRODUCTION IN FACTORIES.

(Tons.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)
1954-55	2,508	20,290	7,921	13,101	1,083	275	45,178
1955-56	3,379	13,996	7,579	12,633	763	331	38,681
1956-57	4,019	20,542	7,137	11,958	1,182	333	45,171
1957-58	4,042	14,840	5,175	10,495	1,017	326	35,895
1958-59	5,044	17,441	8,220	11,200	1,181	339	43,425

(a) Northern Territory and Australian Capital Territory: nil.

The monthly production of cheese in factories in Australia, together with the annual output from farms, is shown in the table below for each of the years 1954-55 to 1958-59.

PRODUCTION OF CHEESE IN FACTORIES AND ON FARMS: AUSTRALIA.

(Tons.)

Month.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Factories—</i>					
July	2,429	2,170	2,366	2,066	2,240
August	3,754	3,162	3,587	2,978	3,267
September	5,422	4,376	5,013	4,356	4,509
October	6,657	5,360	6,570	5,316	5,729
November	6,660	5,254	6,427	4,931	5,559
December	5,910	4,579	5,800	3,992	5,048
January	4,096	3,697	4,567	3,033	4,540
February	2,729	2,521	3,078	2,290	3,287
March	2,454	2,321	2,721	2,074	2,939
April	1,816	1,860	1,902	1,610	2,360
May	1,589	1,666	1,601	1,555	2,016
June	1,662	1,715	1,539	1,694	1,931
<i>Factory Total(a)</i>	45,178	38,681	45,171	35,895	43,425
<i>Made on Farms(b)</i>	15	19	45	81	78
Grand Total	45,193	38,700	45,216	35,976	43,503

(a) Year ended June.

(b) Year ended March.

8. **Condensed, Concentrated and Powdered, etc., Milk Production.**—The manufacture of these products has expanded greatly since 1938-39 to meet the needs of the Services during the 1939-45 War and for export purposes since the war. The output of condensed, concentrated and evaporated full cream milk (sweetened and unsweetened) in 1958-59 was more than three times as high as the average for the three years ended 1938-39, while that of powdered milk (full cream and skim) was more than five times as high. Over the same period, the quantity of whole milk used in the manufacture of the products shown below increased from 33.2 million gallons to 81.1 million gallons or by 135 per cent. These products are manufactured mainly in Victoria, which produced 66 per cent. of the total (in terms of whole milk equivalent) in 1958-59. New South Wales accounted for 18 per cent. and the remaining States for 16 per cent.

The following table shows details of the output of condensed, concentrated, powdered, etc., milk during the years 1954-55 to 1958-59.

PRODUCTION OF CONDENSED, CONCENTRATED AND POWDERED, ETC., MILK: AUSTRALIA.

Year.	Full Cream Milk Products.				Total Whole Milk Equivalent of Full Cream Milk Products.	Milk By-products.		
	Condensed, Concentrated and Evaporated Full Cream Milk.(a)		Powdered Full Cream Milk.	Infants' and Invalids' Foods.(c)		Condensed, Concentrated and Evaporated Skim and Buttermilk.	Powdered Skim Milk.	Powdered Buttermilk and Whey. (d)
	Sweetened. (b)	Un-sweetened.						
	Tons.	Tons.	Tons.	Tons.	'000 gals.	Tons.	Tons.	Tons.
1954-55	30,520	18,045	15,539	10,921	64,365	6,053	24,618	5,086
1955-56	35,065	25,561	17,211	12,861	71,324	3,866	30,893	4,990
1956-57	39,980	28,221	17,864	13,567	78,123	4,731	30,567	5,551
1957-58	37,358	28,357	18,073	13,977	79,864	7,274	24,580	5,668
1958-59	31,627	29,776	19,183	13,993	81,074	4,943	34,128	6,024

(a) Includes mixtures of full cream and skim milk and mixtures of full cream, skim and buttermilk.
 (b) Includes Coffee and Milk. (c) Includes malted milk and milk sugar (lactose). (d) Includes powdered mixed skim and buttermilk.

9. **Local Consumption of Butter and Cheese.**—A system of butter rationing introduced as a war-time measure and retained until 16th June, 1950, had the effect of considerably reducing civilian consumption. In the last year of rationing, 1949-50, consumption was 25.3 lb. per head per annum compared with an average of 32.9 lb during the years 1936-37 to 1938-39. Following the cessation of rationing, consumption rose sharply to 31.2 lb. in 1951-52, and until 1955-56, fluctuated between 29 lb. and 31 lb. per head per annum. In the next three years, however, consumption fell to 28.0 lb., 27.8 lb. and 25.9 lb. per head.

Cheese consumption rose considerably during the period of butter rationing, from 4.4 lb. per head pre-war to 6.3 lb. per head in 1947-48. Consumption has fluctuated considerably since then between a minimum of 5.2 lb. (in 1948-49) and a maximum of 6.8 lb. (in 1957-58). In 1958-59, 5.4 lb. per head were consumed.

The following table shows details of the production and disposal of butter and cheese for each of the years 1954-55 to 1958-59 compared with the averages for the years 1946-47 to 1948-49:—

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA.

Year.	Changes in Stocks.	Production.	Exports.(a)	Consumption in Australia.	
				Total.	Per Head per annum.
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
BUTTER.					
Average, 1946-47 to 1948-49	-3.5	157.1	75.9	84.7	24.8
1954-55	(b) +4.9	191.1	63.7	122.5	30.2
1955-56	(b) +4.7	208.9	83.8	120.4	29.0
1956-57	(b) -4.3	192.9	77.8	119.4	28.0
1957-58	(b) +2.8	175.8	52.2	120.8	27.8
1958-59	(b) -0.4	193.6	78.9	115.1	25.9
CHEESE.					
Average, 1946-47 to 1948-49	-0.7	42.4	24.3	18.8	5.5
1954-55	-1.6	45.2	21.4	25.4	6.2
1955-56	-1.8	38.7	16.6	23.9	5.7
1956-57	+5.6	45.2	17.1	22.5	5.3
1957-58	-2.1	36.0	8.6	29.5	6.8
1958-59	+6.0	43.5	13.6	23.9	5.4

(a) Figures for butter include ghee expressed as butter as well as butter shipped as ships' stores. Figures for cheese include ships' stores after allowance for a small quantity of cheese imported.
 (b) Includes allowance for movements in stocks other than those held in main cold stores.

10. **Butter and Cheese—Equalization Schemes.**—(i) *Voluntary Plan* (1926–1934). During the period from January, 1926, to April, 1934, a voluntary scheme known as the “Paterson Plan” was in operation which had the effect of stabilizing the price of butter in Australia. Details of this scheme may be found on page 1028 of Official Year Book No. 38 and in earlier issues.

(ii) *Compulsory Plan* (1934–1936). On 1st May, 1934, the “Paterson Plan” was superseded by a compulsory price equalization plan, details of which are shown on page 1029 of Official Year Book No. 38 and earlier issues. This compulsory plan was invalidated in 1936 by the decision of the Privy Council which declared in the *James (Dried Fruits)* Case that the Commonwealth had no power under the Constitution to regulate trade between the States.

(iii) *Voluntary Plan* (1936 to date). Since the Privy Council decision, the butter price equalization scheme has continued to operate by voluntary action based on agreements between the manufacturers and the Commonwealth Dairy Produce Equalization Committee Limited. The Committee, which comprises members of the State Dairy Products Boards and other persons representing the industry, enters into agreements with manufacturers to secure to them equal rates from sales of butter and cheese, and for this purpose may fix basic prices at which these products sold in Australia or abroad are to be taken into account. The effect is that local and export trade are distributed in equitable proportions among the manufacturers by means of quotas. The Committee fixes basic prices and equalizes returns to factories through an Equalization Fund. The States originally participating in the scheme were New South Wales, Victoria, Queensland and Tasmania in respect of both butter and cheese, and South Australia in respect of cheese. South Australia and Western Australia entered the scheme in respect of butter on 1st April, 1946, and Western Australia extended its participation to include cheese in January, 1947.

Details are given in para. 15 on page 994 of the returns realized on local and oversea sales and of the average equalization rate for the years ended June, 1954 to 1959. Details are also given in para. 12 of the wholesale prices of butter and cheese for home consumption as fixed by State Prices Authorities or as determined by the Dairy Produce Equalization Committee.

11. **Casein Equalization Scheme.**—Following upon action taken in September, 1951, to include control of exports of casein in the powers of the Australian Dairy Produce Board, that body decided that the most equitable method of allocating permits for exports of casein was to ensure that the recipient was a party to an approved equalization scheme. Agreements were completed with all known manufacturers and the equalization of casein sales under this scheme commenced in January, 1952. The scheme is operated by the Commonwealth Dairy Produce Equalization Committee Ltd. A Casein Equalization Advisory Committee was appointed to consider matters relevant to the operation of the plan and to make recommendations to the operating company.

Average realizations under the scheme were 166s. 5.2d. per cwt. in 1954–55, 180s. 9.9d. per cwt. in 1955–56, 184s. 6.6d. per cwt. in 1956–57, and 185s. 3.6d. per cwt., in 1957–58. An interim equalization value of 167s. 0d. per cwt. has been fixed for 1958–59.

Prior to the operation of this scheme, another plan had been operated by the Casein Equalization Committee from July, 1946, to September, 1949.

12. **Wholesale Price of Butter and Cheese in Australia.**—Since 20th September, 1948, when the Commonwealth Government ceased to exercise price control, the fixation of the wholesale prices of butter and cheese has been a matter for State Prices Authorities. At present, however, the power to fix prices is being exercised in only two States, Queensland and South Australia, the prices in all other States being determined by the Commonwealth Dairy Produce Equalization Committee Ltd. Details of prices operating in each of the States since 1st July, 1952, are shown in the following table.

WHOLESALE PRICES OF BUTTER AND CHEESE, AUSTRALIA.(a)

(s.d. per cwt.)

Date from which Prices became Effective.	New South Wales.	Victoria.	Queensland	South Australia.	Western Australia.	Tasmania.
BUTTER.						
1st July, 1952 ..	417 8	417 8	417 8	417 8	422 4	417 8
26th July, 1955 ..	452 8	452 8	451 6	450 4	452 8	452 8
1st July, 1956 ..	466 8	466 8	465 6	464 4	466 8	466 8
1st July, 1958 ..	485 4	485 4	484 2	484 2	485 4	485 4
CHEESE.						
1st July, 1952 ..	256 8	256 8	256 8	256 8	256 8	256 8
26th July, 1955 ..	275 4	275 4	275 4	274 2	275 4	275 4
1st July, 1956 ..	282 4	282 4	282 4	281 2	282 4	282 4
1st July, 1958 ..	291 8	291 8	291 8	291 8	291 8	291 8

(a) Maximum prices fixed by State Prices Authorities or as determined by the Commonwealth Dairy Produce Equalization Committee Ltd., for choicest grade bulk butter and cheese.

13. **Marketing of Dairy Products.**—(i) *The Dairy Produce Export Control Act 1924-1954.* Introduced at the request of the dairying industry, this Act was passed by the Commonwealth Parliament with the object of organizing the overseas marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. In the course of its functions, the Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in overseas freights and insurance rates, and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board, a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvements and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council, the functions of these bodies were combined by an amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle and the quality of butter. The functions of the Board were later extended to enable it to advise the Government in connexion with the transport of dairy produce, the securing of new markets, the expansion of existing markets and other matters.

The Australian Dairy Produce Board was re-constituted in 1947 by an amendment to the Dairy Produce Export Control Act, its membership being reduced from seventeen to twelve. The functions of the Board were extended to enable it to purchase and sell, on behalf of the Commonwealth, dairy produce intended for export, and to control all matters concerning the handling, storage, protection, treatment, transfer and shipment of the produce so purchased or sold. In 1953, the direct dairy farmer representation on the Board was increased from two to three members, thus raising the total membership from twelve to thirteen.

In April, 1954, the Act was further amended to prepare for the implementation of an export marketing plan to follow the expiration of the United Kingdom-Australia Butter and Cheese Contract. The amendment enabled the Board to purchase dairy produce intended for export to the United Kingdom and to sell such produce on behalf of the dairying industry in lieu of its previous function of selling on behalf of the Commonwealth Government. In the interests of the stability of the industry, the Act provides that the Board may be the sole Australian exporter of butter and cheese to the United Kingdom.

The Dairy Produce Export Control Act was again amended in 1958, principally to increase the membership of the Board by one to a total of 14 members. The additional member, designated the Administrative Member, is charged with the task of executing the Research and Sales Promotion campaign.

(ii) *The Dairy Produce Export Charges Act 1924-1937.* This Act provides for the imposition of a levy on all butter and cheese exported from Australia to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation.

(iii) *Butter and Cheese Contracts.* Details of the war-time contracts arranged between the United Kingdom and Australian Governments, whereby the former undertook to purchase Australia's surplus butter and cheese, were shown on pages 985 and 986 of Official Year Book No. 37. The purchase of butter and cheese from 1944-45 to 1954-55 was covered by the Long-Term Purchase Agreement. Details of this Agreement and of the prices paid for various grades of butter and cheese each year under the Agreement were given in pages 943 and 944 of Official Year Book No. 42 and in earlier issues.

14. Commonwealth Subsidies and Stabilization Plans.—(i) *Butter, Cheese and Processed Milk Products.* Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided subsidies on milk supplied for the manufacture of butter, cheese and processed milk products. Subsidies were paid on a seasonal basis prior to 1st April, 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalization Committee Limited through factories to milk producers by payments on butter, cheese and processed milk products manufactured. Subsidy on milk supplied for the manufacture of processed milk products was discontinued from 1st July, 1948, to 30th June, 1949, and again from 1st July, 1952.

The first of the two five-year stabilization plans came into operation on 1st July, 1952. Under this plan, the Commonwealth Government, with the approval of the States, determined the ex-factory prices of butter and cheese, guaranteed to dairy farmers a return, based upon costs of efficient production, in respect of quantities of butter and cheese sold within the Commonwealth, plus an additional 20 per cent. (if produced), and agreed to make available an amount by way of subsidy to lift the return on that part of output covered by the guarantee, to the guaranteed level. The second five-year stabilization plan, which came into operation on 1st July, 1957, continued all the important features of the first plan. A new feature, however, was that any subsidy made available under the scheme should be on the basis of a fixed amount in any dairying year.

The actual amount of subsidy paid by the Commonwealth Government was in excess of its original commitment in 1955-56, when, to assist in offsetting a fall in export returns, the Government agreed to increase subsidy payments to a fixed figure of £14,500,000. In each of the years 1956-57 to 1959-60, a fixed amount of £13,500,000 was provided.

In 1958, following a period of low incomes due to drought and low export returns, the Government decided to give additional support to the dairy industry. This support took the form of underwriting a final equalization payment to factories on total production of butter and cheese for the 1958-59 season. The amount underwritten for butter was 40d. per lb. commercial butter basis. The Government also decided that it would consider applying the same principle of underwriting a final equalized return at levels determined by it each year, after an examination of all relevant factors for the remaining period of the 1957-62 five year stabilization plan. For the 1959-60 season, the underwriting of a final minimum return of 40d. per lb. commercial butter was again determined. The principal value underlying this guarantee is that it enables the Commonwealth Dairy Produce Equalization Committee Ltd. to strike a higher initial payment to factories than would otherwise be possible without risk of over payment.

Following representations by industry organizations, the Commonwealth Government established the Joint Dairy Industry Advisory Committee in November, 1946, comprising a chairman nominated by the Government, four representatives of Commonwealth Government Departments and four industry representatives from the several States. The Committee's functions, broadly, were to advise and assist in conducting cost and other surveys of dairy farm production and to act as an advisory body to the Government in these matters. From 1st April, 1947, to 30th June, 1952, the rates of overall return to milk producers determined by the Commonwealth Government for the purpose of subsidy payments were based on recommendations made by the Committee following surveys of production costs in the dairy industry.

Early in 1953, the Dairy Industry Investigation Committee, an independent body consisting of three members, was appointed to advise the Commonwealth Government on the guaranteed return to producers during 1953-54. The Committee was re-established in

March, 1954, to advise the Government on the guaranteed return for each year of the remaining three year period of the Stabilization Plan. For the current five year plan, the Committee has been re-appointed to determine the cost of efficient production of butter-fat only.

Amounts realized on exports of butter and cheese in excess of the f.o.b. equivalent of the guaranteed return have been credited to the Dairying Industry Stabilization Fund, which was established in July, 1948, for the purpose of stabilizing returns from exports. During 1951–52, the Stabilization Fund met the deficiency in respect of all exports which did not return sufficient to meet the basic return to the factory. From 1st July, 1952, to 30th June, 1957, it was available to the industry to be used, in whatever manner considered desirable by it, to make good any deficiency in respect of all exports other than the 20 per cent. provided for under the Commonwealth Government's Five-year Stabilization Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry. After allowing for outstanding debits, the amount standing to the credit of the Dairying Industry Stabilization Fund at 30th June, 1959, totalled approximately £1,566,668.

(ii) *Whole Milk.* In addition to the subsidies referred to above, the Commonwealth Government subsidized the production of whole milk consumed directly from 1943–44 to 1948–49. Details of the amounts distributed during each year will be found in Official Year Book No. 38, page 1031.

15. Average Returns from Butter and Cheese Sold and Assessed Farm Production Costs.— The first of the two following tables shows in respect of butter and cheese, particulars of the rates realized on local, interstate and overseas sales and the average equalization and subsidy rates in operation for the years ended June, 1955 to 1959. The second table shows the distribution between factory and farm of the overall return to manufacturers for butter. The assessed farm production cost for commercial butter is also shown for comparison with the average returns to dairy farmers.

BUTTER AND CHEESE: RATES REALIZED ON SALES, AVERAGE EQUALIZATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRY INDUSTRY ASSISTANCE ACTS.

(Rates s. d. per cwt.)

Year ended 30th June.	Rates Realized on Sales.			Average Equalization Rate.	Rate of Subsidy.	Rate of Overall Return to Manu- facturers.
	Local.	Interstate.	Overseas.			
BUTTER.						
1955	403 4.2	384 1.1	386 3.8	395 10.3	79 0.0	474 10.3
1956	438 1.5	419 7.3	353 0.2	400 10.5	65 1.0	465 11.5
1957	453 5.1	425 4.9	298 6.7	392 6.6	65 7.8	458 2.4
1958	453 11.5	431 11.3	238 4.3	380 9.3	71 7.8	452 5.1
1959	(a)	(a)	(a)	b395 8.0	64 10.9	b460 6.9
CHEESE.						
1955	246 3.1		191 11.1	220 2.3	29 10.9	250 1.2
1956	264 0.1		259 9.5	262 4.1	31 5.7	293 9.8
1957	267 11.2		166 8.4	223 11.9	26 2.6	250 2.5
1958	270 7.4		137 8.0	240 0.7	35 11.2	275 11.9
1959	(a)		(a)	b248 4.0	29 7.5	b277 11.5

(a) Not yet available. (b) Rates are of an interim nature and represent only payments made to date; further payments by the Dairy Produce Equalization Committee are expected.

(Source: Commonwealth Dairy Produce Equalization Committee Limited).

COMMERCIAL BUTTER: OVERALL RETURNS AND ASSESSED FARM PRODUCTION COSTS.

(Pence per lb.)

Year ended 30th June.	Average Overall Returns on Commercial Butter.			Assessed Farm Production Cost.(a)
	Rate of Overall Return to Manufacturer.	Manufacturing Cost.	Return to Dairy Farmer.	
1955.. .. .	50.878	4.253	46.625	49.29
1956.. .. .	49.924	4.626	45.298	49.29
1957.. .. .	49.093	4.626	44.467	51.00
1958.. .. .	48.474	4.626	43.848	51.00
1959.. .. .	(b) 49.347	4.826	(b) 44.521	53.00

(a) Up to 1956-57, the figures shown are the guaranteed returns as recommended by the Dairy Industry Investigation Committee and accepted by the Commonwealth Government: from 1957-58, they represent the cost of production as found by the Dairy Industry Investigation Committee. (b) Rates are of an interim nature and represent only payments made to date; further payments by the Dairy Produce Equalization Committee are expected.

16. Dairy Industry Extension Grant.—An annual grant of £250,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1st July, 1948. This assistance was continued by the Commonwealth Government for a further period of five years from 1st July, 1953, again by means of annual grants of £250,000, and similarly for a further five years from 1st July, 1958, at the same rate.

17. Dairy Industry Research and Sales Promotion.—At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems. The legislation provides for a statutory levy to be imposed on all butter and cheese manufactured in Australia. The maximum rates of levy are $\frac{3}{16}$ d. per lb. on butter and $\frac{3}{8}$ d. per lb. on cheese but the initial rates which commenced in November, 1958, were $\frac{1}{8}$ d. per lb. on butter and $\frac{1}{16}$ d. per lb. on cheese. The proceeds from the levy were divided equally between research and sales promotion. The rates of levy operative from November, 1959, were increased to the maximum provided under the Act, the increase being utilized solely for the purposes of intensifying the sales promotion campaign.

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of £1 for £1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy.

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee—the Dairy Produce Research Committee.

18. Oversea Trade in Butter, Cheese and Milk.—(i) *General.* The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. In normal circumstances, the extent of this surplus is chiefly dependent upon seasonal conditions. Exports of butter, which averaged 90,000 tons in the three years prior to the 1939-45 War, were maintained to a certain extent during the war and post-war years by the restriction of supplies for local consumption, but because of lower production they nevertheless fell as low as 41,800 tons in 1944-45. In the last year of rationing, 1949-50, exports were 79,200 tons, but they fell to 11,300 tons by 1951-52. There was a substantial increase in exports in subsequent years and in 1958-59, 77,316 tons were shipped. In addition, small quantities of butter concentrate and ghee have been exported during the post-war period. Exports of cheese, which averaged 11,500 tons pre-war, rose to a maximum of 26,000 tons in 1948-49, but they subsequently fell and in 1958-59 amounted to only 14,411 tons.

During 1938-39, 96,900 tons of butter (95 per cent. of all butter exported) were shipped to the United Kingdom. With the decline in total exports, there was also a substantial reduction in the amount shipped to the United Kingdom up till 1954-55. This increased again to 72,400 tons (88 per cent.) in 1955-56, but fell once more in succeeding years and, in 1958-59, was 69,119 tons (89 per cent.).

In 1938–39, exports of cheese totalled 16,000 tons of which 15,500 tons or 97 per cent, were exported to the United Kingdom. Of the total of 14,411 tons exported in 1958–59, 11,574 tons or 80 per cent. were shipped to the United Kingdom.

Total quantities and values of exports of Australian origin of butter, cheese and condensed, concentrated, etc., milk and cream are shown on page 1003.

(ii) *Butter and Cheese Exports graded according to Quality.* All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination of officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows:—Flavour and aroma, 50 points, texture, 30 points, and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality, at 90 to 92 points, first quality, at 86 to 89 points, second quality, and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table, particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Primary Industries, Part I.—Rural Industries*. 1957–58, Bulletin No. 52.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA.
(Per Cent.)

Grade.	Butter.			Cheese.		
	1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Choicest	56.8	61.0	58.8	11.7	11.8	7.7
First Quality	32.9	28.2	30.3	70.9	72.0	78.3
Second Quality	7.7	8.1	8.4	17.4	16.2	14.0
Third Quality(a)	2.6	2.7	2.5	(b)	(b)	(b)
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes rejected.

(b) Included with Second Quality.

§ 4. Pigs and Pig Products.

1. *Pigs.*—The number of pigs in Australia first reached a million in 1905. It fluctuated about this level up to 1940, when it reached 1,455,341, while in 1941 the record number of 1,797,340 was recorded. There was a decline in the two following years but the numbers rose again to 1,746,721 in 1944; thereafter, there was an almost continuous decline until 1953 when the number of pigs was only 992,532. Numbers increased in succeeding years to 1,422,565 in 1958 but fell again in 1959 to 1,288,742. Details of the number of pigs in each State and Territory for each of the five years 1955 to 1959 are given in the following table:—

NUMBER OF PIGS.

As at 31st March.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1955	375,019	263,666	406,879	84,502	107,039	58,382	911	104	1,296,502
1956	343,030	227,223	372,871	72,920	99,097	49,498	1,076	115	1,165,830
1957	386,789	258,336	394,518	92,180	139,982	52,358	755	139	1,325,057
1958	397,011	278,628	422,713	108,343	150,783	62,595	3,071	167	1,423,311
1959	348,730	253,125	399,875	98,374	115,446	69,215	3,802	175	1,288,742

Further details relating to pig numbers are given in Chapter XXIII.—Pastoral Production. Maps showing the distribution of pigs in Australia at 31st March, 1955 and 1948, appeared on page 912 of Official Year Book No. 43 and on page 908 of Official Year Book No. 39, respectively.

2. **Size of Pig Herds.**—A series of special tabulations relating to rural holdings undertaken for all States for the year 1955–56 covered, *inter alia*, a classification of holdings by size of pig herd and by area of holding, area of wheat grown for grain, and size of dairy cattle herd. The tabulations have been published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings*, 1955–56, and also appear in summarized form in *Primary Industries, Part I.—Rural Industries*, 1956–57, Bulletin No. 51.

3. **Pigs Slaughtered.**—The number of pigs slaughtered during each of the years 1954–55 to 1958–59 are shown in the following table:—

PIGS SLAUGHTERED.

('000.)

Year.	Slaughterings Passed for Human Consumption.							Total Slaughtering (including Boiled Down).
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)	
1954–55 ..	615	422	499	136	182	79	1,939	1,951
1955–56 ..	576	395	459	132	160	88	1,817	1,828
1956–57 ..	541	382	438	124	157	82	1,730	1,740
1957–58 ..	638	473	462	175	219	91	2,066	2,077
1958–59 ..	604	462	521	179	197	108	2,077	2,087

(a) Including Australian Capital Territory and Northern Territory.

4. **Pigmeat.**—(i) *Production.* In the following table, details of the production of pigmeat in each State are shown for the years 1954–55 to 1958–59.

PRODUCTION OF PIGMEAT (BONE-IN WEIGHT).

(Tons.)

Year	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1954–55 ..	33,031	22,058	23,645	8,115	8,873	3,429	65	192	99,408
1955–56 ..	30,543	21,492	21,921	8,124	7,922	3,635	67	204	93,908
1956–57 ..	28,879	21,178	20,200	7,367	7,475	3,341	59	200	88,699
1957–58 ..	28,683	24,343	23,131	9,516	11,405	4,216	82	239	101,615
1958–59 ..	27,253	23,770	26,210	9,451	9,991	4,911	113	187	101,886

(ii) *Consumption.* As in the case of most other meats, pork was subject to rationing during the 1939–45 War and immediate post-war years and consumption was at a much lower level than pre-war. In 1954–55, consumption of pigmeat (as pork or smallgoods) reached 10.2 lb., only slightly below the immediate pre-war average, but fell during each of the two following years to 8.7 lb. per head in 1956–57. Consumption in 1957–58 rose to 10.9 lb. per head, but declined slightly in 1958–59 to 10.7 lb. per head. In the following table, details of the production and disposal of pigmeat are shown for the years 1954–55 to 1958–59.

PRODUCTION AND DISPOSAL OF PIGMEAT (BONE-IN WEIGHT): AUSTRALIA.

Year.	Changes in Stock.	Production.	Exports.	Curing and Canning.	Consumption (as Pork or Smallgoods) in Australia.	
					Total.	Per Head per annum.
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1954–55 ..	–0.5	99.4	2.9	55.6	41.4	10.2
1955–56 ..	–0.7	93.9	1.1	53.2	40.3	9.7
1956–57 ..	+0.9	88.7	0.6	50.3	36.9	8.7
1957–58 ..	+0.8	101.6	1.0	52.6	47.2	10.9
1958–59 ..	–1.9	101.9	0.9	55.3	47.6	10.7

5. **Bacon and Ham.**—(i) *Production.* As in the case of pork, the increased demand for bacon and ham during the 1939–45 War stimulated production to a level not previously attained. Production reached its peak in 1944–45 when 56,246 tons of bacon and ham were cured. This was followed by a decline in output in each succeeding year to 36,628 tons in 1951–52. Production has been maintained at about this level in subsequent years, 38,671 tons being recorded in 1958–59. Details of production are shown by States in the following table for each year 1954–55 to 1958–59.

PRODUCTION OF BACON AND HAM (CURED WEIGHT).(a)
(Tons.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1954–55	11,769	8,074	10,807	3,378	3,316	1,027	38,371
1955–56	11,463	7,929	10,224	3,587	3,231	1,040	37,474
1956–57	10,322	7,721	9,901	3,415	3,054	917	35,330
1957–58	11,468	8,345	9,682	3,340	2,952	880	36,667
1958–59	11,606	8,832	11,299	3,069	2,955	910	38,671

(a) Pressed and canned bacon and ham have been converted to bone-in weight, except in pre-war years.

(ii) *Consumption.* Consumption per head declined in the early stages of the 1939–45 War from the pre-war average of 10.2 lb. per annum, but subsequently increased to 12.7 lb. in 1946–47. A decline to a relatively steady level of from 7 lb. to 8 lb. per head per annum followed. In 1958–59, consumption amounted to 7.1 lb. per head. Details of production and disposal of bacon and ham for the years 1954–55 to 1958–59 are shown in the following table.

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED WEIGHT)(a): AUSTRALIA.

Year.	Changes in Stock.	Production.	Exports.	Canning.	Consumption in Australia.	
					Total.	Per Head per annum.
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1954–55	–0.2	38.4	1.0	5.4	32.2	7.9
1955–56	+0.4	37.5	0.7	5.1	31.3	7.5
1956–57	+0.3	35.3	0.5	5.6	28.9	6.8
1957–58	–0.2	36.7	0.5	6.1	30.3	7.0
1958–59	+0.2	38.7	0.3	6.4	31.8	7.1

(a) Pressed and canned bacon and ham have been converted to bone-in weight, except in pre-war years.

6. **United Kingdom Contracts.**—Details relating to the several war-time contracts and the more recent Long-term Purchase Agreement between the Governments of the Commonwealth and the United Kingdom for the sale of Australia's surplus production of meats (including pigmeats) are included in Chapter XXIII.—Pastoral Production.

7. **Oversea Trade in Pigs and Pig Products.**—Total quantities and values of exports of Australian origin of pigs and pig products (bacon and ham, lard and frozen pork) for the years 1956–57 to 1958–59 are shown on page 1003.

§ 5. Poultry-farming.

1. **General.**—Poultry-farming has been carried on in Australia for many years and the State Departments of Agriculture have encouraged its development by appointing experts to advise on the care and management of poultry and by conducting egg-laying competitions. Originally the industry was conducted in conjunction with other branches of rural activity,

mainly dairying, but it is now a specialized and distinct industry and it is from this source that the bulk of the commercial production is obtained. Practically all farms keep poultry for the purpose of supplying their own domestic requirements and in many cases some supplies from this source are also marketed. In addition, many private homes keep small numbers of fowls in backyard runs and this helps to maintain domestic needs, particularly when eggs are in short supply.

2. **Numbers of Poultry.**—In pre-war years, the numbers of the principal kinds of poultry were a normal feature of the annual census of livestock in all States except Victoria and Tasmania. These data were collected on a restricted scale by all States in 1942–43, the details obtained being confined to farms of one acre or more producing eggs or poultry for sale. The collection has since been discontinued in some States. Because of their incompleteness, details of poultry numbers are not published.

3. **Recorded Production and Disposal of Eggs.**—(i) *Shell Eggs.* Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Egg Boards of the several States. Details of production in the respective States as recorded by these authorities for the years 1954–55 to 1958–59 are shown in the following table:—

SHELL EGGS: PRODUCTION(a) RECORDED BY EGG BOARDS.
(‘000 Dozen.)

State.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
New South Wales	55,057	51,635	52,334	49,168	45,221
Victoria	26,377	24,985	24,874	25,956	23,447
Queensland	8,312	7,848	8,848	7,894	8,692
South Australia	12,359	11,820	11,375	11,219	9,692
Western Australia	8,909	7,687	8,589	8,602	7,577
Tasmania	889	943	912	(b)	(b)
Total	111,903	104,918	106,932	(c) 102,839	(c) 94,629

(a) Receipts from consignors and sales by producer agents. Tasmania.

(b) Not available.

(c) Excludes

(ii) *Egg Pulp.* Prior to the 1939–45 War, production of egg pulp was about 7 million lb. per annum. This was used almost entirely for the manufacture of cakes, pastry and biscuits, only negligible quantities being exported. Production was expanded greatly during the war years to meet the requirements of the Armed Services and was increased further in post-war years to supply a large export market and also a substantially increased home consumption. During recent years, however, production has fallen somewhat and, in 1958–59, was only 19.4 million lb. (compared with the post-war maximum of 45.2 million lb.), the lowest recorded since the end of the war.

Particulars of the production of whole egg pulp as recorded by the Egg Boards in the several States are shown in the following table.

LIQUID WHOLE EGG: PRODUCTION RECORDED BY EGG BOARDS.
(‘000 lb.)

State.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
New South Wales	17,057	14,649	18,755	13,198	9,808
Victoria	6,564	6,879	6,245	6,591	3,473
Queensland	2,419	2,901	3,302	1,658	2,011
South Australia	6,516	5,991	4,501	4,461	2,495
Western Australia	1,924	1,532	2,024	2,855	1,600
Tasmania	246	236	133	(a)	(a)
Total	34,726	32,188	34,960	(b) 28,763	(b) 19,387

(a) Not available.

(b) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1958–59 amounted to 631,000 lb. and 337,000 lb. respectively, compared with 514,000 lb. and 355,000 lb. respectively in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

(iii) *Egg Powder.* The production of dried egg powder was established in Australia in 1942, to treat Australia's surplus eggs so as to maintain exports to the United Kingdom under war-time conditions. Production was continued after the end of the war for export purposes, but since 1946-47 has declined to negligible proportions.

4. **Production and Consumption of Eggs.**—Statistics of total egg production must necessarily be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control plus estimates of production from uncontrolled areas and from "back-yard" poultry-keepers.

**ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL(a):
AUSTRALIA.**

Year.	Changes in Stock.	Estimated Total Production.	Exports.	For Drying and Pulping.(b)	Consumption in Australia as Human Food.	
					Total.	Per Head per Annum.
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
Average, 1936-37 to 1938-39	(c)	89.5	7.6	3.2	78.7	25.7
1954-55	-0.2	115.4	12.2	17.5	85.9	21.2
1955-56 .. .. .	..	113.2	9.9	15.4	87.9	21.1
1956-57	+0.9	115.8	6.3	16.9	91.7	21.5
1957-58	-0.7	111.8	7.3	13.9	91.3	21.0
1958-59	-0.1	106.1	3.3	9.6	93.3	21.0

(a) The average weight of an egg in Australia is taken as 1.75 oz. (b) Includes wastage.
(c) Not available.

Details of the consumption of shell eggs, liquid whole egg and total shell egg equivalent (expressed in lb. and in number of eggs) per head of population per annum are shown in the following table.

**SUPPLIES OF EGGS AND EGG PRODUCTS(a) MOVING INTO CONSUMPTION:
AUSTRALIA.**

(Per Head per Annum.)

Commodity.			Average, 1936-37 to 1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Shell Eggs lb.			25.7	21.2	21.1	21.5	21.0	21.0
Liquid Whole Egg and Egg Powder(a) lb.			0.9	1.6	1.3	1.5	1.2	1.3
Total {	lb. Number(b)		26.6 243	22.8 209	22.4 205	23.0 210	22.2 203	22.3 203

(a) In terms of weight of shell eggs. (b) The average weight of an egg in Australia is taken as 1.75 oz.

5. **Marketing of Eggs.**—(i) *United Kingdom Market.* Details of the annual contracts entered into between the United Kingdom and Australian Governments up to 1952-53 and of the results of trading under free market conditions in the four years following appear in earlier issues of the Official Year Book.

Because of the United Kingdom policy of expanding egg production, the United Kingdom's importance as a market for Australian shell eggs has been declining. In 1952-53, the United Kingdom took 86 per cent. of Australia's exports of shell eggs. In 1957-58, it took only 17 per cent. This proportion rose to 28 per cent. in 1958-59, though total exports were only 5 million dozen in 1958-59, as against nearly 21 million dozen in 1952-53.

The United Kingdom remains virtually the only export market for egg pulp. Australian exports of pulp thereto were approximately 7,000 tons in 1957-58 and 3,700 tons in 1958-59, the prices received on an f.o.b. basis averaging approximately £stg.197 a ton and £stg.201 10s. a ton respectively.

(ii) *Other Markets.* West Germany was the second largest export market for some years but her relative importance has declined. Other outlets for Australian eggs have been Singapore, Saudi Arabia, Italy, Malta, and New Guinea.

(iii) *Egg Export Control Act 1947.* Following the termination of Commonwealth control over the production and marketing of eggs on 31st December, 1947, functions relating to the local marketing of eggs reverted to State Egg Boards, which became responsible for stabilizing prices and marketing of eggs produced in the respective States. In order to assist in marketing Australia's surplus production of eggs under the Long-term Purchase Agreement with the United Kingdom, the Commonwealth established the Australian Egg Board under the Egg Export Control Act 1947. The Board, which commenced to operate on 1st January, 1948, was empowered to buy and sell, on behalf of the Commonwealth Government, eggs and egg products intended for export which comply with the provisions of the Export (Dairy Produce) Regulations. In addition, the Board was authorized to deal with all matters relating to the export of eggs and egg products from Australia, to make such experiments as are likely to lead to the improvement of the quality of Australian eggs and to promote their sale overseas. The Board consisted of ten members, including six representatives of egg producers and one representative of the Commonwealth Government.

Due to the discontinuance of inter-governmental trading in eggs and egg products, the Egg Export Control Act was amended in April, 1954, to provide for the reconstruction of the Australian Egg Board and the implementation of an egg export marketing scheme. The new Board, established on 17th June, 1954, comprises nine members including a representative of the Commonwealth Government and representatives from each State Egg Marketing Board (except Tasmania). The Board is empowered to act as a trading authority selling eggs and egg pulp as agent for State Egg Boards. However, any State Board desiring to export on its own account may do so, subject to general terms and conditions as laid down by the Australian Egg Board.

6. Oversea Trade in Poultry Products.—The Australian oversea export of poultry products has been confined in the past chiefly to eggs in shell and egg contents, which are consigned mainly to the United Kingdom. In 1949-50, exports of eggs in shell reached the record level of 23 million dozen. Shipments were at a lower level in subsequent years and, in 1958-59, 5.0 million dozen only were exported.

Prior to the 1939-45 War, exports of egg contents were small and in 1939-40 there was an excess of imports. During the war years, exports expanded greatly, mainly to meet Service requirements, and after the close of the war there was a further expansion to 37.9 million lb. of egg contents in 1953-54. There was a decline in subsequent years and in 1958-59 8.5 million lb. only were exported.

Since 1945, there has also been a considerable increase in the exports of frozen poultry. Exports, which amounted to 0.5 million lb. in 1958-59, were, however, much lower than in most preceding years.

Total quantities and values of exports of Australian origin of poultry products (live poultry, frozen poultry, eggs in shell, egg pulp and powder) for the years 1956-57 to 1958-59, are shown on page 1003.

§ 6. Bee-farming.

1. Production of Honey and Bees-wax.—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming, but its place in Australia's rural economy is not very significant. The returns of honey from productive hives during 1958-59 showed an average of 103 lb. per hive and the average quantity of wax was 1.3 lb. per productive hive.

The number of hives and the production of honey and bees-wax during the year 1958–59 are shown in the following table.

BEEHIVES, HONEY AND BEES-WAX, 1958-59.

State or Territory.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	'000.	'000.	'000.	'000 lb.	£'000.	'000 lb.	£'000.
New South Wales ..	116	71	187	10,583	661	137	38
Victoria ..	74	27	101	7,624	532	86	24
Queensland ..	25	12	37	1,766	94	25	7
South Australia ..	56	17	73	5,453	266	80	18
Western Australia ..	38	7	45	6,680	221	84	16
Tasmania ..	5	2	7	342	26	4	2
Aust. Cap. Territory ..	1	..	1	39	3	1	..
Australia ..	315	136	451	32,487	1,803	417	105

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year. In recent years, there has been a pronounced upward trend in the output of honey, the 1948–49 figure, 53,200,000 lb., being an all-time record. Production in 1958–59 at 32,487,000 lb., although much lower than in 1948–49, was still higher than pre-war.

The table hereunder shows the production of honey and bees-wax for the five years ended 1958–59.

HONEY AND BEES-WAX PRODUCTION.

('000 lb.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(a)
HONEY.							
1954-55 ..	16,411	8,834	1,732	3,671	2,721	243	33,633
1955-56 ..	15,207	7,010	2,329	5,115	4,482	302	34,464
1956-57 ..	14,946	8,210	3,075	8,169	5,650	372	40,458
1957-58 ..	13,029	5,884	1,373	4,151	7,313	481	32,286
1958-59 ..	10,583	7,624	1,766	5,453	6,680	342	32,487
BEES-WAX.							
1954-55 ..	194	94	37	60	52	4	441
1955-56 ..	184	78	34	70	57	4	427
1956-57 ..	188	90	42	116	70	5	511
1957-58 ..	165	67	25	86	87	5	436
1958-59 ..	137	86	25	80	84	4	417

(a) Includes Australian Capital Territory and Northern Territory.

2. **Oversea Trade in Bee Products.**—Prior to the 1939–45 War, the production of honey exceeded Australian requirements and a small quantity was available for export. In 1948–49, the record quantity of 32.1 million lb., was exported. Exports amounted to 19.7 million lb. in 1957–58 and 11.2 million lb. in 1958–59.

The quantity of bees-wax imported generally exceeded that exported up to 1945–46, but since 1946–47, with the exception of 1951–52, production has been high on account of exceptionally good seasons, and exports have exceeded imports by substantial margins. In 1958–59, exports exceeded imports by an amount of 110,000 lb.

Total quantities and values of exports of honey and bees-wax for the years 1956–57 to 1958–59 are shown in § 7 below.

§ 7. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during the years 1956-57 to 1958-59 are shown below.

EXPORTS OF FARMYARD, DAIRY AND BEE PRODUCTS : AUSTRALIA.

Particulars.	Unit of Quantity.	Quantity.			Value (£A'000 f.o.b. Port of Shipment).		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Bees-wax	lb.	117,193	170,167	121,441	35	43	30
Butter	'000 lb.	170,834	113,779	173,189	25,824	15,639	24,956
Cheese	"	39,265	20,675	32,282	3,861	2,208	4,467
Eggs in shell	'000 doz.	10,142	11,828	5,032	1,997	1,851	899
Eggs not in shell—							
In liquid form	'000 lb.	20,457	17,897	8,518	2,568	1,967	832
Dry	"	8	43	5	10	19	8
Honey	"	12,828	19,685	11,194	841	936	509
Lard	"	126	397	146	15	23	13
Meats—							
Bacon and Ham (including canned)	"	2,612	2,896	2,534	620	686	565
Frozen Poultry	"	1,059	606	461	215	133	110
Frozen Pork	"	1,437	2,149	1,870	271	318	276
Milk—							
Condensed, Preserved, etc.—							
Sweetened Full Cream	"	63,234	67,995	50,671	4,222	5,101	3,542
Unsweetened	"	2,932	1,909	4,509	189	120	265
Dried or Powdered—							
Full Cream	"	15,269	13,898	17,195	2,155	2,128	2,525
Skim	"	45,417	29,795	52,082	2,181	1,182	1,905
Malting	"	6,088	5,343	5,998	906	750	898
Infants' and Invalids' Foods—							
Essentially of Milk	"	7,382	8,207	7,313	1,091	1,228	1,103
Other	"	7,246	6,388	5,675	1,334	1,238	1,099
Pigs, live	Number	918	1,030	938	25	27	21
Poultry, live (a)	"	50,823	143,869	198,616	7	20	31

(a) Including day-old chicks.

§ 8. Imports of Dairy and Farmyard Products into the United Kingdom.

NOTE.—Values of imports in this section are expressed in £ sterling c.i.f. at the landed point.

1. Summary, Principal Products.—The following table shows the quantities and values of the principal dairy products imported into the United Kingdom during the years 1957, 1958 and 1959.

DAIRY PRODUCTS: IMPORTS INTO UNITED KINGDOM.

Product.	Unit of Quantity.	1957.		1958.		1959.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			£'000.		£'000.		£'000.
Butter	'000 cwt.	7,306	99,483	8,454	97,397	8,017	134,368
Cheese	"	2,465	25,059	2,372	23,575	2,726	38,403
Milk, powdered and preserved	"	..	5,493	..	5,230	..	9,655
Bacon and ham	'000 cwt.	7,095	91,828	7,272	96,860	7,594	101,621
Pork(a)	"	497	4,642	370	3,401	280	3,212
Eggs in shell	'000 doz.	11,773	1,954	14,854	2,192	12,761	1,594
Eggs not in shell, liquid or frozen	'000 cwt.	417	5,806	473	5,445	253	3,555

(a) Excludes pork in airtight containers.

2. **Butter.**—Until 1950, Australia had regularly supplied between 20 and 30 per cent. of the butter imported into the United Kingdom. After 1950, when butter rationing was abolished in Australia, the quantity shipped was considerably lower, but in 1956 it again amounted to 1,515,000 cwt., or 21.4 per cent. of the total United Kingdom imports. Shipments fell away again in subsequent years. In 1959, Australia supplied 1,282,000 cwt. or 16.0 per cent. of the United Kingdom imports, New Zealand supplied 40.6 per cent. and Denmark 23.6 per cent.

In the following table, particulars of the quantity and value of butter imported into the United Kingdom are shown for the years 1957, 1958 and 1959 according to country of origin.

BUTTER: IMPORTS INTO UNITED KINGDOM.

Country from which Imported.	1957.		1958.		1959.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 cwt.	£'000.	'000 cwt.	£'000.	'000 cwt.	£'000.
New Zealand	2,924	39,067	3,400	38,877	3,253	53,527
Australia	1,067	13,615	986	11,634	1,282	20,206
Other Commonwealth Countries and Republic of Ireland ..	316	4,479	373	4,474	160	3,611
Denmark	1,740	25,757	1,907	23,244	1,891	33,187
Netherlands	254	3,720	593	6,609	270	5,111
Other Foreign Countries ..	1,005	12,845	1,195	12,559	1,161	18,726
Total	7,306	99,483	8,454	97,397	8,017	134,368

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1959 was £38,403,000. Of this, £21,950,000 was imported from New Zealand, £3,724,000 from Australia, £3,409,000 from the Netherlands, £2,721,000 from Canada and £2,610,000 from Denmark.

4. **Bacon.**—Of a total import, in 1959, of bacon (excluding bacon in airtight containers), valued at £87,146,000, the value of that supplied by Denmark was £62,799,000, Poland, £11,478,000, the Irish Republic, £5,354,000, and the Netherlands, £3,929,000.

5. **Pork.**—The value of the United Kingdom imports of pork (excluding pork in airtight containers) was £3,212,000 in 1959. Imports were mainly from New Zealand (£972,000) and the Argentine Republic (£881,000).

6. **Eggs.**—In 1959, the value of eggs imported into the United Kingdom was £5,149,000, comprising eggs in shell, £1,594,000, and liquid or frozen eggs, £3,555,000. Eggs in shell were supplied principally by Denmark and the Union of South Africa.

7. **Milk Products.**—In 1959, the value of preserved milk imported into the United Kingdom was £9,655,000. Of this total, imports from New Zealand amounted to £3,736,000, Australia, £2,068,000, and the Netherlands, £2,018,000.

8. **Other Dairy and Farmyard Products.**—The imports into the United Kingdom from Australia of poultry, bees-wax, lard and honey in 1959 were unimportant.

CHAPTER XXV.

FORESTRY.

§ 1. Introduction.

1. **Source of Statistics.**—Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. In each State, suitable areas of Crown Land have been reserved for forestry purposes, either as State forests or other reserves and the administration of these is the responsibility of the respective State Government forestry authorities. In addition, in some States, areas of forests on Crown Lands dedicated as National Parks and the like are administered by Government Departments other than the forestry authorities. There are timber resources on private land in each State but details concerning these areas and production therefrom are not complete for all States. Forestry activities in the Northern Territory and the Australian Capital Territory are administered by the Commonwealth Government.

Particulars of forested areas contained in this chapter have been collected by the Statisticians of the several States, mainly from information provided by the State Forestry authorities. The Commonwealth Forestry and Timber Bureau has provided figures for the Northern Territory and the Australian Capital Territory and in addition, has made available certain other data.

Statistics of timber by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of eucalyptus oil, gums and resins, and tanning barks have been provided by the State Forestry Authorities.

Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the overall statistics of overseas trade.

All figures shown are for the financial years ending 30th June.

Forested areas shown in this chapter relate to areas administered by the State or Commonwealth authorities or to those reserved by government legislation. They are not based on any inventory of forest resources using standard and uniform definitions throughout the Commonwealth. It should be noted therefore that the figures are not comparable between States owing to the lack of uniformity in the interpretation of the definition of what constitutes a forest.

2. **Objects of Forestry.**—The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oils and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, and aesthetic effects. Forestry also aims at improving existing forests and woodlands and at providing a partial tree cover on denuded lands.

§ 2. The Forestry Industry.

1. **General Account of Forests and Timbers.**—The area of land in Australia suitable for the production of commercial timber as the primary crop is very small in comparison with the size of the continent. It is concentrated mainly around the wetter coastal belts and the eastern highlands and it includes the bulk of the land also suitable for intensive development by agricultural or pastoral undertakings.

The trees which make up the forests of Australia are mainly evergreen hardwoods. The characteristic genus is *Eucalyptus*. There are over six hundred different kinds of eucalypts and with few exceptions the natural occurrence of all of them is restricted to Australia. The genus includes species such as the mountain ash (*Eucalyptus regnans*) of Victoria and Tasmania, the world's tallest growing hardwood, and the karri (*E. diversicolor*) of Western Australia, another forest giant. At the other end of the scale, there are many eucalypts which do not grow to tall trees, including the species collectively known as the "mallees". The mallees develop a number of small stems from an underground structure called the "mallee root". Less than 100 species of eucalypts are used for sawmilling and not more than 40 are exploited extensively. The main commercial eucalypts are listed in Official Year Book No. 39 and earlier issues.

A large number of other genera represented in the Australian forest flora also produce commercial hardwoods. Among the outstanding furniture, cabinet and veneer timbers are red cedar (*Cedrela toona* var. *australis*), Queensland maple (*Flindersia brayleyana*), Southern and Northern silky oak (*Grevillea robusta* and *Cardwellia sublimis*, respectively), Queensland walnut (*Endiandra palmerstoni*), blackwood (*Acacia melanoxylon*), rose mahogany (*Dysoxylum fraserianum*), etc. Turpentine (*Syncarpia laurifolia*) ranks with the world's best as a harbour piling timber. Coachwood (*Ceratopetalum apetalum*) came into prominence for rifle furniture and for aircraft plywood during the 1939–45 War.

The most important indigenous softwood resources of Australia were in the forests of hoop pine (*Araucaria cunninghamii*) of Queensland and New South Wales. The greater part of the original hoop pine forest has gone but some of the areas have been replanted with this species in Queensland and, to a lesser extent, in New South Wales. There are still considerable areas of the useful white-ant-resisting cypress pine (*Callitris* spp.) in the inland areas of Queensland and New South Wales. They have been seriously overcut but are gradually being brought under management.

Other native softwoods which have played a useful but minor part in the Australian timber industry include bunya pine (*Araucaria bidwillii*) and kauri (*Agathis* spp.) of Queensland, and huon pine (*Dacrydium franklinii*), celerytop pine (*Phyllocladus rhomboidalis*) and King William pine (*Arthrotaxis selaginoides*) of Tasmania.

The savannah woodlands of the interior of Australia yield commercial commodities such as sandalwood, tan-barks and essential oils. They also have an important function in providing fuel and rough timbers for the development of agricultural and pastoral holdings.

2. **Extent of Forests.**—According to data assembled for the Seventh British Commonwealth Forestry Conference held in Australia and New Zealand in 1957, the total area of forest in Australia is estimated at 186,791 square miles, or about 6.3 per cent. of the total land area of the continent. The estimated forest area is distributed amongst the States as follows (the proportion of forest land to the total area of each State is shown in parentheses):—New South Wales and the Australian Capital Territory, 37,942 square miles (12 per cent.); Victoria, 26,222 (30 per cent.); Queensland, 28,000 (4 per cent.); South Australia, 36,000 (including 25,000 square miles of mallee suitable for firewood only) (10 per cent.); Western Australia, 41,826 (4 per cent.); Tasmania, 12,301 (47 per cent.) and the Northern Territory, 4,500 (1 per cent.). The areas given are rough estimates only and are considerably in excess of those which are both suitable for reservation and likely to be maintained for timber production. Included in the figures are considerable areas of low grade forest which, in many cases, are suitable for little more than the production of firewood. It is doubtful if the remaining prime native forest area of Australia exceeds 30,000 square miles. Further particulars are set out in the table hereunder.

CLASSIFICATION OF FOREST AREA(a): AUSTRALIA.

Class of Forest.	Area (Square Miles).				Proportion of Total Forest Area.
	State Forest.	Communal Forest.	Private Forest.	Total.	
Exploitable—					Per Cent.
Softwood	10,512	5	2,808	13,325	7.1
Mixed Wood	754	..	..	754	0.4
Hardwood	41,691	75	13,129	54,895	29.4
<i>Total</i>	<i>52,957</i>	<i>80</i>	<i>15,937</i>	<i>68,974</i>	<i>36.9</i>
Potentially Exploitable—					
Softwood	58	..	100	158	0.1
Mixed wood	100	..	..	100	0.1
Hardwood	13,002	..	12,200	25,202	13.5
<i>Total</i>	<i>13,160</i>	<i>..</i>	<i>12,300</i>	<i>25,460</i>	<i>13.7</i>
Other Lands Classed as Forest	81,023	450	10,884	92,357	49.4
Grand Total ..	147,140	530	39,121	186,791	100.0

(a) Based on the 1955 classification of forests.

State forests accounted for 78.8 per cent. of the total forest area, private forests for 20.9 per cent. and communal forests for 0.3 per cent.

The bulk of the softwood area of approximately 13,325 square miles is in Queensland and New South Wales and consists principally of slow-growing cypress pine (*Callitris spp.*) in low rainfall areas. The total area has been increased in comparison with previous estimates by the inclusion of a large area of crown land carrying scattered cypress pine. The volume of this species per acre is comparatively low.

Further particulars of forested areas are set out in § 3, page 1009.

3. **Persons Engaged.**—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "forestry (excluding sawmilling)" are shown, together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED, AUSTRALIA.

Particulars.						At 30th June.	
						1947.	1954.
Persons engaged in—							
Forestry (excluding sawmilling)	..	..	No.			24,793	15,468
All Primary Industries	..	..	No.			563,607	560,100
Total Work Force	..	..	No.			3,196,431	3,702,022
Persons employed in Forestry (excluding sawmilling) as a proportion of—							
All Primary Industries	..	..	%			4.4	2.8
Total Work Force	..	..	%			0.8	0.4

The number of persons engaged in forestry operations, excluding those engaged in the sawmilling industry, represents about three or four per cent. of the total number of persons engaged in all primary industries and less than one per cent. of the total workforce of Australia.

Particulars of the number of persons employed by Forestry Departments and in Sawmills are included in § 5, page 1014.

4. Value of Production.—(i) *General.* Statistics of both the gross value (at principal market) and local value (at place of production) of the forestry industry are available. Particulars of the value of materials used in the process of production are not available for all States, so that values cannot be stated on a net basis, as has been done with most other industries.

In 1958–59, the local value of forestry production amounted to £52,273,000. The most important States were New South Wales, Victoria and Queensland with £15,574,000, £14,063,000 and £8,356,000 respectively.

(ii) *Gross and Local Values, 1957–58 and 1958–59.* Values of forestry production for each State are shown for 1957–58 and 1958–59 in the following table. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in Chapter XXX.—Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION.

(£'000.)

State or Territory.				Gross Value (Gross Production Valued at Principal Markets).	Marketing Costs.	Local Value (Gross Production Valued at Place of Production).
1957–58.						
New South Wales	..	..	..	15,766	425	15,341
Victoria	..	..	..	14,109	1,021	13,088
Queensland	..	..	..	10,335	921	9,414
South Australia	..	..	..	3,711	124	3,587
Western Australia	..	..	..	5,523	411	5,112
Tasmania	..	..	..	5,234	687	4,547
Northern Territory	..	..	..	38	(a)	38
Australian Capital Territory	..	..	..	190	11	179
Australia	..	..	..	54,906	3,600	51,306
1958–59.						
New South Wales	..	..	..	15,863	289	15,574
Victoria	..	..	..	15,441	1,378	14,063
Queensland	..	..	..	9,256	900	8,356
South Australia	..	..	..	4,227	124	4,103
Western Australia	..	..	..	5,451	384	5,067
Tasmania	..	..	..	5,631	744	4,887
Northern Territory	..	..	..	44	(a)	44
Australian Capital Territory	..	..	..	193	14	179
Australia	..	..	..	56,106	3,833	52,273

(a) Not available.

(iii) *Local Values, 1954-55 to 1958-59.* In the following table, the local value of forestry production and the local value per head of population are shown by States for the years 1954-55 to 1958-59.

LOCAL VALUE OF FORESTRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Aust.(a)
LOCAL VALUE (£'000).							
1954-55	13,686	9,987	7,895	4,427	3,850	4,037	44,047
1955-56	15,343	11,823	8,660	4,596	4,877	4,591	50,059
1956-57	16,758	12,297	9,487	4,051	4,779	4,523	52,099
1957-58	15,341	13,088	9,414	3,587	5,112	4,547	51,306
1958-59	15,574	14,063	8,356	4,103	5,067	4,887	52,273

LOCAL VALUE PER HEAD OF POPULATION (£).

1954-55	4.0	4.0	6.0	5.5	5.9	12.9	4.8
1955-56	4.3	4.6	6.4	5.5	7.3	14.4	5.4
1956-57	4.7	4.7	6.9	4.7	7.0	13.9	5.5
1957-58	4.2	4.8	6.7	4.0	7.3	13.6	5.3
1958-59	4.2	5.0	5.9	4.5	7.1	14.3	5.3

(a) Includes Northern Territory and Australian Capital Territory.

§ 3. Forested Areas.

1. *Forest Reservations.*—The first attempt to determine the forest areas which should be reserved solely for purposes of timber production was made at an Interstate Forestry Conference held at Hobart in 1920. This Conference decided that an area of 24½ million acres of indigenous forest should be permanently reserved. According to statements furnished by State and Commonwealth authorities, reservations of forest areas in Australia as at 30th June, 1959, totalled 33,647,000 acres, of which 22,980,000 acres were Dedicated State Forests and 10,667,000 acres were Timber and Other Reserves. The distribution of those areas is shown by States in the following table:—

AREA OF FOREST RESERVATIONS, 30TH JUNE, 1959.

(Acres.)

State or Territory.	State Forests.	Timber Reserves (Forest Acts).	Other Reserves.	Total.
New South Wales	6,363,854	1,443,648	..	7,807,502
Victoria	4,845,415	710,541	(a) 169,302	5,725,258
Queensland	5,104,923	3,027,238	(b) 838,134	8,970,295
South Australia	267,858	981	222,000	490,839
Western Australia	4,323,902	1,772,610	(a) 883,950	6,980,462
Tasmania	2,073,567	137,028	(c) 972,147	3,182,742
Northern Territory .. ..	..	..	(d) 358,900	358,900
Australian Capital Territory .. ..	..	..	(e) 131,000	131,000
Australia	22,979,519	7,092,046	3,575,433	33,646,998

(a) Timber reserves under the Land Act. (b) National Parks. (c) Consists of 612,000 acres of pulp concessions over Crown land and 360,147 acres of exclusive forest permits not elsewhere included. (d) Gazetted areas with timber potential. (e) Forest land not specifically reserved.

If the permanently reserved areas were all of good quality, accessible, and fully productive forests supplying the class of timber required, they could be regarded as adequate for a much larger population than exists in Australia at the present time. Actually, however, a considerable proportion is in inaccessible mountainous country and many of the forests contain a mixture of species, only some of which are at present of commercial value; much of the area consists of inferior forest and a large proportion of the whole has been seriously degraded by recurrent fires. Also, the indigenous forest does not contain adequate supplies of softwoods producing commercial timbers and Australia's requirements of these have to be met largely by imports from other countries.

It is freely acknowledged by Australian forestry authorities that information on forest resources is very imperfect. It is not possible at present to give a reliable estimate of the forest areas needed to meet all future demands because of the number of unknown variables involved—in particular, the yield capacity per acre, future consumption of different classes of timber per head, and the future population. It appears, however, that all available potentially good forest country, including adequate areas for plantations of conifers, will need to be reserved, protected and systematically managed, if Australia is to approach the goal of self-sufficiency in timber supplies in the future. One of the most urgent requirements in this connexion is a comprehensive estimate of forest resources.

2. Plantations.—Reference has been made to the inadequacy of indigenous softwood supplies, but as a result of the planned policy of the forest services of the States and the Commonwealth and, to a lesser extent, of several private commercial organizations, the area of softwood plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry received earliest attention in South Australia as it is the State most poorly endowed with natural forest. South Australia now has a larger area of planted softwoods than any other State in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. The total production is now over 130,000,000 superficial feet per annum and is expected to be increased substantially during the next decade. Production is also increasing in the other States and first thinnings from their plantations are already supplying a significant portion of the requirements of the case-making industry.

The extent of existing softwood plantations as at 30th June, 1959, is set out in the following table:—

SOFTWOOD PLANTATIONS, 30TH JUNE, 1959.
(Acres.)

State or Territory.	Government.			Private (mainly <i>P. radiata</i>).	Total.
	<i>Pinus radiata</i> .	Other species.	Total.		
New South Wales	59,020	18,339	77,359	12,000	89,359
Victoria	34,113	10,985	45,098	48,693	93,791
Queensland	1,455	83,607	85,062	2,300	87,362
South Australia	99,106	7,779	106,885	35,133	142,018
Western Australia	7,544	19,501	27,045	300	27,345
Tasmania	12,738	827	13,565	4,528	18,093
Australian Capital Territory ..	20,059	2,084	22,143	100	22,243
Australia	234,035	143,122	377,157	103,054	480,211

A special article giving a detailed account of the history and development of softwood plantations and of the characteristics of individual species, prepared by the Commonwealth Forestry and Timber Bureau, is included in Official Year Book No. 45, pages 975 *et seq.*

Hardwood plantations (mainly *Eucalyptus spp.*) comprise a much smaller area and the total acreage is about 30,789 acres, nearly two-thirds of which is mallet (*Eucalyptus astringens*) which has been established in Western Australia for tan-bark production.

§ 4. Forestry Production.

1. **Timber.**—Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table, by States, for the year 1958-59. These figures have been compiled from the annual factory collections in each State which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters.

(NOTE.—The volumes of logs treated shown in the following tables are recorded in terms of hoppus measure which is approximately only three quarters of the true volume. The volume of a log in super. feet hoppus measure is calculated by squaring the girth (under bark at the centre of the log) and multiplying this by three quarters of the length of the log, all measurements being in feet. A cubic foot equals 12 super. feet.)

OUTPUT OF AUSTRALIAN GROWN TIMBER : ALL MILLS, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.(a)
LOGS TREATED ('000 SUPER. FEET HOPPUS MEASURE.)							
Hardwood ..	483,825	535,494	316,595	5,875	511,133	289,854	2,142,776
Softwood ..	115,098	55,611	131,399	205,118	12,228	12,754	532,208
Total ..	598,923	591,105	447,994	210,993	523,361	302,608	2,674,984

SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS ABOVE ('000 SUPER. FEET.)

Hardwood ..	307,835	316,626	185,385	2,938	205,566	140,449	1,158,799
Softwood ..	65,680	27,392	76,648	119,518	6,377	5,560	301,175
Total ..	373,515	344,018	262,033	122,456	211,943	146,009	1,459,974

(a) Excludes the Australian Capital Territory and the Northern Territory, details for which are not available.

The following table shows logs used, and sawn, peeled and sliced timber produced, in Australia for the years 1954-55 to 1958-59.

OUTPUT OF AUSTRALIAN GROWN TIMBER : ALL MILLS, AUSTRALIA.(a)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
LOGS TREATED ('000 SUPER. FEET HOPPUS MEASURE).					
Hardwood	2,101,306	2,139,337	2,107,781	2,062,360	2,142,776
Softwood	444,536	463,213	447,409	456,453	532,208
Total	2,545,842	2,602,550	2,555,190	2,518,813	2,674,984
SAWN, PEELED OR SLICED TIMBER PRODUCED FROM ABOVE LOGS ('000 SUPER. FEET).					
Hardwood	1,184,992	1,180,936	1,151,428	1,127,150	1,158,799
Softwood	264,296	268,786	267,431	264,027	301,175
Total	1,449,288	1,449,722	1,418,859	1,391,177	1,459,974

(a) Excludes the Australian Capital Territory and the Northern Territory, details for which are not available.

The next table shows the sawn, peeled and sliced output of Australian grown timber from sawmills and other wood-working establishments in each State for the years 1954–55 to 1958–59.

OUTPUT(a) OF AUSTRALIAN GROWN TIMBER : ALL MILLS.
(⁰000 super. feet.)

State.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
New South Wales	372,920	362,709	365,548	359,737	373,515
Victoria	362,334	351,271	342,288	346,473	344,018
Queensland	264,914	261,730	275,936	268,200	262,033
South Australia	82,942	100,983	94,869	84,541	122,456
Western Australia	225,794	222,397	204,474	201,664	211,943
Tasmania	140,384	150,632	135,744	130,562	146,009
Australia(b)	1,449,288	1,449,722	1,418,859	1,391,177	1,459,974

(a) Total production of sawn, peeled and sliced timber. (b) Excludes the Australian Capital Territory and Northern Territory, details for which are not available.

In addition to the sawn timber shown in the preceding table, a large amount of hewn and round timber, e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in respect of the volume of this output is, however, not available.

2. **Veneers, Plywood, etc.**—Cutting of timber for the manufacture of veneers, plywood etc., has been carried out in most States for a number of years. In later years, however, this has been considerably extended, and much greater use has been made of locally-grown timbers, both hardwoods and softwoods. Special attention has also been paid to the selection of logs suitable for peeling.

The following table shows the production of plywood for each of the years 1954–55 to 1958–59.

PLYWOOD PRODUCED.
(⁰000 square feet— $\frac{3}{8}$ -in. basis.)

State.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
New South Wales	35,039	39,256	41,921	45,647	56,378
Queensland	130,330	133,230	118,647	131,205	139,743
Other States	21,235	28,213	33,797	35,784	40,083
Australia	186,604	200,699	194,365	212,636	236,204

Of the total plywood produced in 1958–59, 180,144,000 square feet ($\frac{3}{8}$ -in. basis) was classed as "Commercial", 32,881,000 as "Waterproof", 2,668,000 as "Case" and 20,511,000 as "Sliced Fancy".

During 1958–59, 583.6 million square feet ($\frac{3}{8}$ -in. basis) of veneers were produced by the rotary process for the manufacture of plywood, and 204.0 million square feet ($\frac{3}{8}$ -in. basis) were sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 63.2 million square feet of sliced veneers were produced.

3. **Hardboard.**—The production of hardboard for building purposes from pulped wood has increased considerably in Australia in recent years. There were four factories producing hardboard during 1958–59 (two in New South Wales, one in South Australia and one in Tasmania) and during the three years ended 30th June, 1959, the following quantities were produced:—1956–57, 22,456,000 square yards; 1957–58, 24,504,000 square yards; and 1958–59, 29,067,000 square yards.

Most of this hardboard enters into usage in the condition in which it leaves the producing factories. The remainder is further treated and surfaced to a variety of finishes and in 1958-59 this production accounted for 1,592,000 square yards valued at £792,000.

4. Wood Pulp and Paper.—(i) *Wood Pulp.* The manufacture of wood pulp from Australian-grown timber was established in Australia in 1939, after years of experimentation with eucalypt hardwoods. During 1958-59, four wood pulp mills were operating in three States and production was 144,757 tons of chemical pulp and 62,069 tons of mechanical pulp, a total of 206,826 tons. During the previous year, production was 131,740 tons of chemical pulp and 75,855 tons of mechanical pulp.

- (a) *Victoria.* In Victoria, Australian Paper Manufacturers Limited produce wood pulp at Maryvale in Gippsland by a chemical process known as the kraft or sulphate process. The pulpwood used at this mill consists mainly of eucalypt timber below sawmilling quality together with a quantity of plantation pine thinnings.

During the year 1958-59, 300,578 tons of eucalypt and pine pulpwood and 19,382 tons of chipped sawmill waste were supplied to Maryvale Mill. Plantations of both pines and eucalypts are being established in Gippsland at the rate of approximately 2,500 acres a year by A.P.M. Forests Proprietary Limited.

- (b) *South Australia.* In South Australia, a paper board mill operates near Millicent, using raw material in the form of logs from the State Forests in the south east of South Australia. During 1958-59, a total quantity of 6,993,000 super. feet of pulpwood were supplied to this mill.

The forests of South Australia also supplied large quantities of pulpwood in log form to Australian Paper Manufacturers Ltd., Victoria, and during 1958-59 delivered 11,602,000 super. feet.

Continued progress has been made in establishing a new tissue paper mill near Millicent which commenced pilot operations early in 1960. An agreement has already been completed whereby this mill undertakes to purchase from 10 to 20 million super feet of pulpwood annually.

- (c) *Tasmania.* In Tasmania, two large mills are making pulpwood from indigenous hardwoods. At Burnie, on the north-west coast, Associated Pulp and Paper Mills Ltd. use a chemical method, the soda process, to produce wood pulp for fine writing parchment and printing papers from eucalypt hardwoods. This plant is of the most modern design and pulp and paper manufacture are combined with sawmilling and hardboard production. Offcuts and rejects from the company's and other firms' timber mills are used for pulping and the manufacture of hardboard. A continuous digester has been installed at the Burnie mill, making it the only one in Australia using a continuous pulping process. The company holds freehold and concession forest areas which are managed on a permanent yield basis with regeneration of the eucalypts in all suitable areas. Pine plantations are being established to provide softwoods for pulping.

Australian Newsprint Mills Ltd. at Boyer, 20 miles from Hobart, is the only producer of newsprint in Australia. Wood pulp is produced from hardwoods drawn from State timber concession areas. A mechanical process only was used until 1957 when additional plant was installed for the manufacture of semi-chemical pulp using the cold soda process which allows the utilization of additional species not suitable for ground wood pulp. Eucalypts provide about 80 per cent. of the mill's requirements for wood pulp, the remainder being imported long fibre softwood pulp. To secure more complete bush utilization, the company has established sawmills to convert understorey species, principally myrtle and sassafras, to sawn timber. The forests are managed on a sustained yield basis. Forest utilization and management are designed to obtain eucalypt regeneration. Experimental work into the problems involved is being carried out by the company and the Tasmanian Forestry Commission.

(ii) *Paper and Paper Board.* Paper and paper board are manufactured in all States but the industry is centred mainly in New South Wales, Victoria and Tasmania. During 1958-59, seventeen paper mills were operating, seven in Victoria, four in New South Wales, three in Tasmania and one each in Queensland, South Australia and Western Australia. A wide variety of papers and paper boards is produced in Australian mills, the quantity and value of paper produced in 1958-59 being as follows, with comparable figures for

1957–58 in brackets:—newsprint, 83,071 (81,085) tons valued at £6,304,189 (£6,227,529); blotting, 832 (537) tons, £145,224 (£94,571); duplicating, 4,870 (4,305) tons, £830,224 (£694,960); printing and writing, 63,200 (47,521) tons, £10,496,789 (£8,154,766); kraft wrapping, 57,668 (50,613) tons, £7,437,943 (£6,569,533); other wrapping, 12,362 (14,669) tons, £2,092,727 (£2,434,014); felt and carpet felt, 4,439 (4,553) tons, £448,339 (£464,406); and other paper, 35,043 (34,289) tons, £3,709,471 (£3,675,831). In addition, 200,339 (181,123) tons of paper boards valued at £17,437,412 (£16,471,576) were produced.

5. **Other.**—(i) *Eucalyptus Oil*. Oil may be distilled from the foliage of all varieties of *Eucalyptus*, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but considerable quantities are manufactured, particularly in New South Wales and Victoria. The value of oversea exports of eucalyptus oil distilled in Australia was £198,572 in 1956–57; £131,485 in 1957–58; and £77,083 in 1958–59. The quantities exported in the years 1956–57 to 1958–59 were 547,435 lb., 354,434 lb. and 209,541 lb. respectively.

(ii) *Gums and Resins*. Gums and resins are produced in most States of Australia, the main product being grass tree or yacca gum. This gum, which is used in the preparation of varnishes and lacquers, comes chiefly from South Australia, while small quantities are also produced in New South Wales and Western Australia. In 1958–59, the recorded production for Australia of gums and resins was 10,386 cwt. Exports of acaroid resin, grass-tree and yacca gum from Australia during the same period amounted to 7,014 cwt. valued at £14,914.

(iii) *Tanning Barks*. The forests of Australia are capable of yielding a wealth of tanning materials; many species of *Eucalyptus* and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Scattered distribution, however, has resulted in only the richest tan-bearing species being used in Australia. These are:—Golden wattle (*Acacia pycnantha*), green or black wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*). Mallet (*E. astringens*), of Western Australia, is not extensively used in Australian tanneries, but is exported to Europe and other countries. References to oversea trade in tanning substances are made in § 7, pages 1017 and 1018.

The production of extract from the bark of karri (*E. diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated karri (*E. calophylla*) bark is not yet complete. The total production of tanning bark in Australia approximated 25,000 tons per annum in the years prior to 1939, but since then production has declined and in 1958–59 was only 7,338 tons. However, this decrease is offset by the increased use of vegetable tanning extracts and synthetic tanning agents.

§ 5. Employment in Forestry.

1. **Persons Engaged in Forestry Activities.**—Particulars of the number of persons who, at the population censuses at 30th June, 1947 and 1954, stated that they were engaged in “forestry (excluding sawmills)” are shown in § 2, para. 3, page 1007.

2. **Employment by Forestry Departments.**—In the table below, details are shown of the number of persons employed by State Forestry Departments, and by the Forestry and Timber Bureau in the Australian Capital Territory and the Northern Territory, as at 30th June, 1959.

PERSONS EMPLOYED BY FORESTRY DEPARTMENTS, AS AT 30TH JUNE, 1959.

Occupational Group.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Professional Staff	185	189	81	79	52	30	2	7	625
Non-professional									
Field Staff ..	207	259	87	5	133	82	..	1	774
Clerical Staff ..	334	268	176	103	43	79	..	6	1,009
Extraction of									
Timber ..	1,245	{	97	119	76	32	..	16	5,643
Milling of Timber			22	812	27	..	..	..
Labour (Forest Workers, etc.)			652	1,496	203	250	2	49	
Total ..	1,971	1,487	1,959	1,278	832	441	4	79	8,051

3. **Employment in Milling Operations.**—Details of the average number of persons employed, including working proprietors, in sawmills during the year 1958–59 are shown in the next table. Further details regarding the operations of these mills are shown in Chapter VII.—Manufacturing Industry.

SAWMILLS: NUMBER AND NUMBER OF PERSONS EMPLOYED, 1958–59.

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Aust.(a)
Number of Sawmills	983	549	557	92	242	314	2,737
Average number of Persons Employed during Year—							
Males	9,066	6,957	6,272	2,253	4,012	2,507	31,067
Females	394	237	293	183	38	96	1,241
<i>Total</i>	<i>9,460</i>	<i>7,194</i>	<i>6,565</i>	<i>2,436</i>	<i>4,050</i>	<i>2,603</i>	<i>32,308</i>

(a) Excludes Northern Territory and Australian Capital Territory, details for which are not available.

§ 6. Forest Administration, Protection and Research.

1. **Commonwealth Forestry and Timber Bureau.**—When the Commonwealth of Australia was established on 1st January, 1901, forestry was not included among the matters transferred from the States to the control of the Commonwealth. In 1925, the Commonwealth Forestry Bureau was instituted and under an Act of 1930 the Bureau received statutory powers. Its functions included the advising of the various Territorial Administrations on forestry matters, the management of forests placed under its control, the establishment of experimental forest stations, the training of students in forestry, etc. In 1946, the title of the Bureau was altered to Forestry and Timber Bureau. The powers and functions of the Bureau were extended to embrace the collection of statistics and information, and advising the Government of the Commonwealth and the States or other interested bodies on matters relating to the supply, production, imports and exports and distribution of timber in Australia.

The activities of the Bureau under its statutory functions are summarized below:—

(a) *Forestry Education.* The Australian Forestry School, located in Canberra, trains students as professional officers to manage the forests of Australia. Training at the School covers the third and fourth years of a four-year course. The first two years are spent at an Australian university in a study of prescribed science subjects. Courses at the School lead to Commonwealth Diplomas in Forestry and in Forest Technology and, in the case of the former, can lead further to a degree in forestry of an Australian university.

In addition to students nominated by State Governments and other Australian and overseas authorities and organizations, private students, including those from overseas, are accepted at the School. The normal capacity of the School is 40.

(b) *Silvicultural Research.* Research head-quarters and a Central Experimental Station have been established at Canberra. Other Forest Experimental Stations have been established at Mount Burr in the south-east of South Australia, in Tasmania, and at Dwellingup in Western Australia, on a co-operative basis with the Forest Services of those States. It is proposed to establish similar co-operative experimental stations in other States and Territories.

With its present limited staff, the research work of the Bureau has been concentrated largely upon studies of forest and climatic conditions, the genetic relationships and requirements of various species, forest nutrition and the improvement of forest yields. A considerable expansion in the research activities is planned for the next few years as suitable trained staff becomes available.

(c) *Forest Management Research.* A national forest stocktaking is being carried out by the Bureau in co-operation with the Forest Services of the States and, to assist in the work of forest assessment, special consideration is being given to the development of the use of aerial surveys.

Consideration is also being given, in co-operation with the State Forest Services, to the establishment of increased areas of plantations of exotic pines with a view to providing additional supplies of softwood timber.

The general economics of forest management are also being studied.

(d) *Timber Supply.* Advice is currently provided to government departments and "the trade" in matters pertaining to timber supply, including—(i) the availability of total quantities and quantities of particular grades and specifications required to meet Australia's needs; (ii) the quantity of timber that should be imported; (iii) the extent to which exports of timber and related products might be allowed without detriment to local needs; and (iv) distribution of timber within Australia.

(e) *Management of Forests.* The Bureau manages the forests of the Australian Capital Territory and maintains a forestry officer in the Northern Territory. In addition, it is responsible for advising the administrations of the Northern Territory and the External Territories on the management of the forests under their charge.

2. **Commonwealth Forest Products Research.**—Fundamental investigations connected with the properties and uses of timber and forest products generally are carried out by the Forest Products Division of the Commonwealth Scientific and Industrial Research Organization. These investigations cover a very wide field, e.g., pulp, paper, seasoning, structure and chemistry of wood, tans, etc.

3. **Forestry Activities of the States.** The powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State, there is a department or commission to control and manage the forests of the State. The functions of these administrations can be summarized as follows:—(a) the securing of an adequate reservation of forest lands; (b) the introduction of proper measures for scientific control and management of forest lands; (c) the protection of forests; (d) the conversion, marketing and economic utilization of forest products; and (e) the establishment and maintenance of coniferous forests to remedy the existing deficiency in softwoods. Annual reports are issued by each State forest authority. Victoria maintains a forestry school at which recruits are trained for the forestry service of that State.

In addition to the work of permanently reserving areas in each State, foresters are endeavouring to survey all timbered lands with a view to the elimination of those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate. The Forestry Departments or Commissions also usually control all timber on open Crown lands as well as over 10 million acres of timber reserves, national parks, etc., but, while these areas contain some land of high value for forestry purposes, the greater part does not fulfil these requirements.

4. **Fire Protection.**—Fire control measures in Australia are the responsibility of the individual State Governments, and the provision of adequate fire protection is one of the main problems facing forest authorities. The forest services are responsible for fire protection measures over an area of some 40 million acres of dedicated and reserved forest areas throughout Australia, including some 10 million acres of Crown land in Victoria.

The responsibility for the protection of private property outside urban areas rests with volunteer bush fire brigade organizations which are co-ordinated in each State by a committee or board carrying out functions of an advisory or educational nature and fostering the growth and organization of the bush fire brigade movement. Throughout the main agricultural and forest areas of Australia there are over 4,500 registered volunteer bush fire brigades with a membership approaching 200,000. Although both forest and rural fire organizations are entirely separate entities, a high degree of co-operation and liaison is maintained.

In addition to the forest service and rural organizations, various private and semi-Governmental bodies in each State maintain fire protection organizations, which are generally concerned with the protection of private forestry operations and hydro-electric and water catchment areas.

Over the five-year period 1955–59, the annual cost of protecting from fire the 40 million acres of forest land for which State Forest Services are directly responsible is estimated at £1,500,000 or about 8½d. an acre. The cost of rural fire control as a whole cannot be estimated with any degree of accuracy, owing to the fact that by far the greatest contribution comes from the personal efforts of volunteer brigade members.

The Australian fire season is very variable, with an average of a particularly bad fire season every seven years or so. Such years as 1926, 1939, 1944, 1952 and 1957 account for a large proportion of the average annual burn which, for the 3-year period 1957–59, amounted to 2,695,000 acres or 2.2 per cent. per annum of the forest area requiring protection. The variability of the Australian fire season is shown in the following table.

NUMBER OF FIRES AND FOREST AREAS BURNT: AUSTRALIA.

Season.				Number of Fires.	Forest Areas Burnt.	Burnt Areas as a Proportion of Total Forest Areas.
				No.	Acres.	Per cent.
1956-57	..	..	..	1,999	344,400	0.86
1957-58	..	..	..	2,908	2,078,340	5.11
1958-59	..	..	..	1,175	456,438	1.10

Source: Forestry and Timber Bureau.

Since the 1939-45 War, forest services have greatly expanded their fire detection facilities and big advances have been made in the use of power water-pumping equipment. Radio communication is now being used extensively by both forest services and rural organizations, and considerable progress has been made in the provision of legislative power for the rural bush fire movement, although the volunteer movement itself dates back to the turn of the century.

Intensive research work is being undertaken on fire problems and several governmental groups are working on such projects as the study of fire behaviour and associated fuel and meteorological conditions; the use of chemical aids in fire suppression; the development of protective clothing and devices to aid fire-fighters and of more efficient fire-fighting equipment. The fire weather service of the Bureau of Meteorology is being continually expanded to provide both the rural and forest fire-fighting authorities with improved fire weather forecasts.

Recognizing that fire prevention is one of the most important aspects of the problem, intensive campaigns have been conducted to reduce the incidence of man-caused fires. A study of fire causes in recent years reveals that human agencies account for 95 per cent. of all fires, and of this figure at least 80 per cent. are preventable. It is estimated that "burning-off" (much of which is started illegally) accounts for 35 per cent. of all fires; smokers, hunters, fishermen and travellers cause 13 per cent. of all fires; while only 5 per cent. of fires in Australia are caused by lightning.

§ 7. Oversea Trade in Forest Products, Timber and Timber Products.

1. Imports.—Quantities and values of timber, veneers and plywood imported into Australia during the years 1956-57 to 1958-59 are shown in the following table:—

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS:
AUSTRALIA.

Particulars.	Unit of Quantity.	Quantity.			Value (£A.f.o.b. Port of Shipment).		
		1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Logs not sawn—							
Softwoods (a) ..	'000 sup. ft.	3,905	3,090	4,969	109,870	85,026	150,781
Hardwoods (b) ..	"	36,911	40,659	50,212	861,323	998,324	1,253,733
Undressed timber—							
Sleepers ..	"	269	200	(c)	19,915	14,777	26
Dunnage ..	"	..	..	..	5,643	5,360	4,204
Softwoods (a), n.e.i.—							
Douglas Fir ..	'000 sup. ft.	171,526	158,087	147,647	7,849,648	6,495,877	5,533,649
Radiata Pine ..	"	28,270	28,578	33,700	999,461	1,011,408	1,196,846
Other ..	"	25,323	19,224	15,370	1,375,989	1,111,148	936,697
Hardwoods (b), n.e.i. ..	"	44,726	54,977	55,412	2,217,777	3,031,477	2,892,734
Box shooks, n.e.i. ..	"	2,399	1,013	633	148,170	60,520	41,471
Dressed timber ..	"	21,900	20,830	14,906	1,460,116	1,417,683	996,659
Veneers ..	"	9,495	12,007	14,035	114,732	130,750	137,808
Plywood ..	'000 sq. ft.	19,562	22,869	24,680	750,384	936,538	885,742
Tanning substances ..	cwt.	154,742	162,238	137,847	536,237	471,349	383,020
Sandalwood oil ..	lb.	1,583	1,687	1,206	4,867	6,486	5,717

(a) Non-pored woods.

(b) Pored woods.

(c) Less than 500 super. feet.

Imports of softwood logs in recent years have come almost exclusively from British Borneo and the Solomon Islands, while 90 per cent. of the imports of hardwood logs have also come from British Borneo. Imports of undressed timber comprise mainly Douglas Fir (Oregon Pine) from Canada and the United States of America and Radiata Pine from New Zealand. Timbers from Scandinavian countries provide most of the dressed timber imports.

Imports of timber products are mainly of veneers and plywoods. The Australian Trust Territory of New Guinea provides most of the plywood imports and a substantial proportion of veneer imports.

Tanning substances are the only other forest products imported in significant quantities. The most important of these is wattle bark produced in the Union of South Africa.

2. **Exports.**—The quantities and values of timber, railway sleepers, veneers, plywood and other timber and forest products exported during the years 1956–57 to 1958–59 are shown in the following table:—

**EXPORTS OF FOREST PRODUCTS AND TIMBER AND TIMBER PRODUCTS
FROM AUSTRALIA.**

Particulars.	Unit of Quantity.	Quantity.			Value (£A.f.o.b. Port of Shipment.)		
		1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Logs not sawn ..	'000 sup. ft.	6,233	6,145	4,257	366,724	389,721	258,732
Undressed timber (a)—							
Sleepers ..	"	22,609	38,393	39,842	1,366,209	2,283,158	2,287,676
Fence posts, girders and pole blocks (b) ..	"	2,303	2,679	1,501	106,175	114,516	83,932
Softwoods (c), n.e.i. ..	"	647	444	387	55,470	33,876	32,014
Hardwoods (d), n.e.i. ..	"	16,620	16,002	14,682	1,144,251	1,108,371	981,036
Dressed timber ..		889	603	863	96,559	62,727	110,982
Veneers ..	'000 sq. ft.	5,724	4,268	7,789	133,588	104,560	219,251
Plywood ..		933	776	701	57,300	61,062	60,879
Tanning substances ..	cwt.	183,172	100,836	79,983	546,778	293,478	218,649
Charcoal ..		5,715	7,406	4,232	13,201	18,362	18,660
Eucalyptus oil ..	lb.	547,435	354,434	209,541	198,572	131,485	77,083

(a) Excludes stumps and the like.
woods.

(b) Excludes pole blocks in 1956–57.

(c) Non-pored

(d) Pored woods.

Sleepers make up the largest single item of forest products, timber and timber products exported from Australia. In 1958–59, India received more than half of Australia's sleeper exports while New Zealand, The Union of South Africa, Iraq and Pakistan each received quantities of more than a million superficial feet. Western Australia was the dominant exporting State.

Most of Australia's log and timber exports are of hardwoods. New Zealand received the greater part of exports of logs as well as of undressed timber. The United Kingdom received most of Australia's exports of plywood and veneers.

Exports of tanning substances in 1958–59 were mainly to the United States of America and that country also was the largest importer of eucalyptus oil. Exports of charcoal were all to New Zealand.

CHAPTER XXVI.

FISHERIES.

§ 1. Introduction.

1. **Source of Statistics.** Fisheries statistics in Australia are, in general, collected by the various authorities responsible for the administration of the industry. The fisheries within territorial waters (i.e. within three miles of the shore) are administered by State Departments while the Commonwealth Fisheries Office, a division of the Department of Primary Industry, develops and administers fisheries in extra-territorial waters and co-ordinates fisheries administration.

Statistics of production of fish, crustaceans, molluscs and pearl-shell and trochus-shell included in this chapter have been collected and supplied by State Fisheries Authorities through the Statisticians of the several States. Statistics have been provided on a year ended 30th June basis although figures for pearl-shell and trochus-shell refer to the season ended December or January of the fiscal year shown.

In interpreting fisheries production statistics, allowance should be made for incomplete coverage. Returns are collected in most States from licensed professional fishermen only, and as a result the published tables fall short of total fish production to the extent of the catch by amateur fishermen, the commercial catch by persons not licensed as professional fishermen and unrecorded catch by professional fishermen.

Particulars of whaling have been collected and supplied for publication by the Commonwealth Fisheries Office.

Data of imports and exports of fisheries and whaling products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the overall statistics of overseas trade.

2. **Presentation of Fisheries Statistics.**—In the preparation of Australian fisheries production statistics, the quantities of individual products are, in the main, in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of "estimated live weights" which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on a "whole weight" basis and molluscs (edible) on a "gross (in-shell) weight basis". The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

The catch is generally shown according to the State in whose waters it was taken. However, a quantity of sharks and crayfish taken by Victorian-based fishermen in Tasmanian waters, but marketed in Victoria, has been included in the Victorian catch, since the economy of that State is most directly affected. Similarly, pearl-shell taken by Queensland luggers operating in Northern Territory waters has been included in the Queensland take. Pearl-shell taken by Japanese fishermen operating in Australian waters is excluded from Australian production figures although the quantities taken are shown as a footnote to the table on page 1028.

§ 2. The Fishing and Whaling Industries.

1. **Resources and Fishing Areas.**—(i) *Fish.* The waters surrounding the Australian continent contain a great variety of marine fauna. Despite this, the fish stocks in Australian waters, in common with most other countries of the Southern Hemisphere, are small by comparison with the stocks in the Northern Hemisphere, which supplies most of the world production. Nevertheless, the Australian catch is low even after making allowance for the smaller resources available and the consumption of fish in Australia per head of population is

small. Consequently, there is not the pressure on resources necessary to induce expansion in the fishing industry and to encourage the investment of large amounts of capital. On the other hand, even this somewhat restricted Australian demand for fish is not met from purely local sources of supply and quantities of fish are imported each year.

This apparent paradox is explained by the fact that the fisheries in the estuaries of the Australian coasts (the so-called estuarine fisheries) and those offshore for fish that dwell on the bottom of the sea (the demersal fisheries) have frequently been overfished with a consequent diminution of stocks while those species of fish which dwell near the surface of the sea (the pelagic species) have barely been exploited at all.

It can be anticipated that the greatest future development of the Australian fishing industry will take place in the pelagic fisheries. However, no great contribution to the supplies of fresh fish can be expected from this source since most of the pelagic species caught are canned or processed. An increase in the supply of fresh fish available to the Australian consumer will therefore require the development of new fishing areas and it appears that the trawling grounds of the Great Australian Bight are the most suitable for development in this regard.

The principal fishing areas at present are the coastal lakes, streams, estuaries and beaches which for the most part are associated with coastal streams. These offshore demersal grounds fall into two classes—(a) the reefs from which cod, snapper, etc., are taken and (b) the grounds from which flathead, morwong, etc., are taken. The reefs extend intermittently from northern Queensland around the southern part of the continent to Shark Bay in Western Australia. The flathead grounds lie on the continental shelf off south-east Australia, chiefly from Port Macquarie to south of Gabo Island and off the eastern Tasmanian coast.

The demersal shark grounds lie principally in Bass Strait and on the continental shelf off eastern South Australia. Other demersal grounds also exist in the Great Australian Bight and off the southern part of Western Australia. The grounds in the Great Australian Bight, however, would require large modern trawlers for commercial exploitation.

The grounds of existing pelagic fisheries include those for tuna which is taken in commercial quantities off the New South Wales and South Australian coasts. Barracouta is taken in Bass Strait and off eastern Tasmania. Spanish mackerel is found off the north-eastern coast from about Coff's Harbour to Cairns.

(ii) *Crustaceans*. Of the crustaceans exploited in Australia, crayfish are the most important and are taken on reefs of the continental shelf in the waters of all States. Considerable development has taken place in the crayfish fisheries, particularly in Western Australian and South Australian waters, owing to the opening up of markets in the United States of America for frozen crayfish tails. Crabs of various species are found in practically all coastal waters while prawns are taken in the temperate waters of Queensland and New South Wales. Lobsters are caught in the fresh-water streams of New South Wales.

(iii) *Molluscs (Edible)*. In the mollusc group, edible oysters of various species are distributed around the entire Australian coastline. Oysters are taken in all States, with the exception of South Australia, and in the Northern Territory but their commercial cultivation is restricted mainly to New South Wales. Until 1956, scallops were taken commercially in Tasmanian waters only, but since then they have been taken also in Queensland and Western Australia. Small quantities of other molluscs are also taken in some States.

(iv) *Pearl-shell and Trochus-shell*. Australia is the world's largest producer of pearl-shell which is fished from Cooktown in northern Queensland round the north coast of Australia to Exmouth Gulf in Western Australia. Trochus-shell is obtained from Mackay in Queensland to King Sound in Western Australia.

(v) *Whales*. Whales migrating from Antarctic waters to their breeding grounds in the warmer waters of low latitudes pass up both the western and eastern coasts of Australia, returning to the Antarctic in the spring. Two whaling stations operate in Western Australia, one in New South Wales, and one in Queensland. The company operating in New South Wales also operates a station at Norfolk Island.

2. *Persons Engaged*.—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "fishing and whaling" are shown together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED: AUSTRALIA.

Particulars.	At Census of 30th June—	
	1947.	1954.
Persons Engaged in—		
Fishing and Whaling No.	10,656	8,637
All Primary Industries No.	563,607	560,100
Total Work Force No.	3,196,431	3,702,022
Persons Engaged in Fishing and Whaling as a Pro- portion of—		
All Primary Industries %	1.9	1.5
Total Work Force %	0.3	0.3

The number of persons engaged in the fishing and whaling industries represents less than two per cent. of the total number of persons engaged in all primary industries and less than half of one per cent. of the total work force of Australia.

Particulars of the number of persons engaged in the fishing industry, as shown in licensing records of the various States, are included in § 7, page 1030.

3. *Value of Production.*—(i) *General.* Although statistics of the value of production of the fishing industry have been on an established basis for some years, attention is drawn to the fact that the actual collection of statistics of the quantity of fish taken presents many difficulties and, consequently, any defects which may occur in the quantities must necessarily be reflected in the value of production. Statistics of both the gross value (at principal market) and local value (at place of production) of the fishing industry are available. Particulars of the value of materials used in the process of production are not available for all States, so that values cannot be stated on a net basis, as has been done with most other industries.

In 1958–59, the local value of fishing and whaling amounted to £11,243,000. The most important State was Western Australia with £3,867,000, followed by New South Wales with £2,947,000.

(ii) *Gross and Local Values, 1958–59.* Values of fishing and whaling production for each State are shown for 1958–59 in the following table. A more detailed reference to the value of production of fishing and whaling and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

GROSS AND LOCAL VALUE OF PRODUCTION: FISHING AND WHALING, 1958-59.
(£'000.)

State or Territory.	Gross Value (Gross Production Valued at Principal Markets).	Marketing Costs.	Local Value (Gross Production Valued at Place of Production).
New South Wales	3,413	466	2,947
Victoria	1,433	168	1,265
Queensland	1,530	187	1,343
South Australia	1,230	159	1,071
Western Australia	3,909	42	3,867
Tasmania	664	(a)	664
Northern Territory	86	(a)	86
Australia	12,265	1,022	11,243

(a) Not available.

(iii) *Local Values, 1954-55 to 1958-59.* In the following table, the local value of fisheries production and the local value per head of population are shown by States for the years 1954-55 to 1958-59. Because the value of materials used in the course of production is not available for all States it is not possible to show a comparison of net values.

LOCAL VALUE OF FISHING AND WHALING PRODUCTION.

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Total.(a)
LOCAL VALUE. (£'000.)							
1954-55	2,739	849	1,275	1,046	2,149	556	8,727
1955-56	2,684	734	1,471	995	2,406	505	8,884
1956-57	2,939	1,178	1,575	1,295	2,737	609	10,506
1957-58	2,792	1,104	1,542	1,074	3,226	508	10,402
1958-59	2,947	1,265	1,343	1,071	3,867	664	11,243

LOCAL VALUE PER HEAD OF POPULATION. (£.)

1954-55	0.8	0.3	1.0	1.3	3.3	1.8	1.0
1955-56	0.8	0.3	1.1	1.2	3.6	1.6	1.0
1956-57	0.8	0.4	1.1	1.5	4.0	1.9	1.1
1957-58	0.8	0.4	1.1	1.2	4.6	1.5	1.1
1958-59	0.8	0.5	0.9	1.2	5.4	1.9	1.1

(a) Includes Northern Territory.

§ 3. Fisheries Production.

1. *Summary of Production of Fisheries.* The following table shows the production and gross values of the various fisheries products by States for the year 1958-59.

FISHERIES PRODUCTION: QUANTITY AND GROSS VALUE OF TAKE, 1958-59.

Particulars.	Unit.	N.S.W.	Vic.(a)	Q'ld.	S.A.	W.A.	Tas.(a)	N.T.	Aust.
Fish—									
Estimated Live Weight	'000 lb.	29,632	11,718	9,930	9,990	10,114	2,797	235	74,416
Gross Value ..	£'000.	1,974	1,185	650	680	668	108	29	5,294
Crustaceans—									
Gross Weight ..	'000 lb.	3,883	1,311	4,131	4,250	17,641	2,755	..	33,971
Gross Value ..	£'000.	595	235	501	550	2,314	390	..	4,585
Molluscs—									
Gross (In-shell) Weight	'000 lb.	12,390	206	548	..	(b) 76	4,735	(c)	(d) 17,955
Gross Value ..	£'000.	813	13	34	..	(b) 11	166	(c)	(d) 1,037
Pearl-shell(e)(f)—									
Weight ..	'000 lb.	..	..	889	..	1,687	..	253	2,829
Gross Value ..	£'000.	..	..	156	..	348	..	57	561
Trochus-shell(e)—									
Weight ..	'000 lb.	..	..	887	..	29	..	..	916
Gross Value ..	£'000.	..	..	103	..	3	..	..	106

(a) Catch by Victorian fishermen in Tasmanian waters is included in Victoria. (b) Excludes oysters and scallops. (c) Oyster production not available for publication. (d) Incomplete; see footnotes to individual States. (e) Western Australia, season ended December, 1958; Queensland and Northern Territory, season ended January, 1959. (f) Excludes pearl-shell taken by Japanese pearling fleet which operated in Australian waters.

In the table below, similar particulars are shown for the years 1954-55 to 1958-59.

**FISHERIES PRODUCTION : QUANTITY AND GROSS VALUE OF TAKE,
AUSTRALIA.**

Particulars.	Unit.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Fish—						
Estimated Live Weight	'000 lb.	70,422	63,298	75,403	72,016	74,416
Gross Value	£'000	4,645	4,621	5,714	5,228	5,294
Crustaceans—						
Gross Weight	'000 lb.	27,668	25,474	24,815	27,504	33,971
Gross Value	£'000	2,928	2,875	3,284	3,772	4,585
Molluscs(a)—						
Gross (In-shell) Weight	'000 lb.	15,892	15,632	17,444	14,905	17,955
Gross Value	£'000	827	788	861	825	1,037
Pearl-shell(b)—						
Weight	'000 lb.	2,489	2,913	3,724	4,102	2,829
Gross Value	£'000	647	771	1,006	995	561
Trochus-shell—						
Weight	'000 lb.	2,784	2,114	1,911	1,229	916
Gross Value	£'000	350	346	357	184	106

(a) Excludes oyster and scallop production in Western Australia and oyster production in Northern Territory.

(b) Excludes pearl-shell taken by Japanese pearling fleet which operated in Australian waters. For quantities excluded see footnote to table on page 1028.

2. **Fish.**—The development of Australian fisheries proper has almost invariably followed the same sequence at each centre. The earliest fisheries were on-shore followed by demersal reef fishing using long lines. Trawling operations have followed line fishing in suitable areas and more recently the exploitation of pelagic fisheries has commenced.

The first major development of the demersal fishing industry came with the institution of trawling operations off the New South Wales coast in 1918, firstly by the New South Wales Government and later by private enterprise. The fleet of these vessels rapidly expanded. In recent years, the number of Danish seine vessels has continued to increase, particularly after the introduction of an improved multi-purpose type of vessel which can be used for tuna fishing as well as for seine trawling. At the same time, however, the number of steam trawlers based on Sydney has decreased to one. A large diesel-powered trawler, based on Adelaide, now operates in the Great Australian Bight.

Since 1930, fishing for school and gummy shark has rapidly extended its area of operations, particularly off the Victorian and Tasmanian coasts. A great impetus was given to this fishery during the war years by the demand for livers for fish oil production for medicinal purposes. This demand, however, eased with the return of cod-liver oil and availability of synthetic vitamin "A".

As far as pelagic fisheries are concerned, the growth of the Australian tuna fishing industry has been substantial in recent years. After the introduction of the pole fishing method in 1950, the catch of tuna increased considerably and amounted to 5.5 million pounds in 1958-59. Practically all this quantity was canned.

At the same time, the demand to justify an increased production of other pelagic fish, such as pilchards, sprats, jack mackerel and anchovies, has not been similarly encouraging. Pilchards caught in southern waters of Australia and sprats taken in Tasmanian waters, usually have some difficulty in finding a market. Considerable quantities of young jack mackerel, taken off the east coast of Tasmania and off Eden in New South Wales, are used as bait in tuna fishing. Anchovies caught by Victorian fishermen are used for manufacturing fish paste.

In the following table, total Australian recorded production of fish by the common names of groups of species is shown by States in terms of estimated live weight for the year 1958-59.

FISH: PRODUCTION BY SPECIES GROUPS, 1958-59.

('000 lb. Estimated Live Weight.)

Species Group.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	Aust.
Mullet	6,274	1,224	4,378	900	1,263	23	1	14,063
Australian Salmon	2,169	1,241	..	900	4,028	205	..	8,543
Shark	1,587	(a)2,655	17	1,900	423	(a) 793	..	7,375
Tuna	3,891	24	9	1,540	12	17	..	5,493
Flathead	2,856	1,427	227	..	30	59	..	4,599
Barracouta	27	2,852	..	..	..	1,421	..	4,300
Snapper	1,368	143	149	395	1,060	..	..	3,115
Whiting	314	367	471	1,350	488	..	..	2,990
Morwong, Jackass Fish, Perch, Queen Snapper	2,450	111	..	..	4	7	..	2,572
Leatherjacket	1,800	13	(b)	..	53	(b)	..	1,866
Ruff, Tommyruff, Sea Herring .. ..	..	84	..	400	1,376	..	..	1,860
Garfish	247	172	115	450	47	48	(b)	1,079
Other Fish	6,649	1,405	4,564	2,155	1,330	224	234	16,561
Total	29,632	a 11,718	9,930	9,990	10,114	(a)2,797	235	74,416

(a) 1,174,000 lb. of shark taken by Victorian fishermen in Tasmanian waters are included in Victoria.

(b) Less than 500 lb.

The production of fish by these common groups of species are shown in the following table for the years 1954-55 to 1958-59:—

FISH: PRODUCTION BY SPECIES GROUPS, AUSTRALIA.

('000 lb. Estimated Live Weight.)

Species Group.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Mullet	12,528	11,576	11,244	11,566	14,063
Australian Salmon	7,415	7,652	12,164	10,561	8,543
Shark	7,766	6,987	8,438	8,241	7,375
Tuna	997	1,141	2,262	3,230	5,493
Flathead	5,874	4,958	5,015	4,108	4,599
Barracouta	6,949	3,445	5,468	3,903	4,300
Snapper	3,197	3,127	3,427	3,144	3,115
Whiting	2,452	2,804	2,680	3,000	2,990
Morwong, Jackass Fish, Perch, Queen Snapper	2,913	2,712	3,895	3,103	2,572
Leatherjacket	1,809	2,280	1,885	1,658	1,866
Ruff, Tommyruff, Sea Herring	1,460	1,068	1,918	1,563	1,860
Garfish	1,143	1,147	1,633	1,139	1,079
Other Fish	15,919	14,401	15,374	16,800	16,561
Total	70,422	63,298	75,403	72,016	74,416

Total production of fish by States for the years 1954-55 to 1958-59 is shown in the following table.

FISH: PRODUCTION BY STATES.

('000 lb. Estimated Live Weight.)

State or Territory.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
New South Wales	26,441	23,062	28,992	27,925	29,632
Victoria(a)	13,833	10,826	14,136	13,348	11,718
Queensland	9,368	9,668	9,447	9,034	9,930
South Australia	8,154	7,328	9,688	9,591	9,990
Western Australia	9,393	9,768	9,545	9,783	10,114
Tasmania(a)	3,115	2,545	3,416	2,175	2,797
Northern Territory	118	101	179	160	235
Australia	70,422	63,298	75,403	72,016	74,416

(a) Catch by Victorian fishermen in Tasmanian waters is included in Victoria.

3. **Crustaceans.**—Crayfish are taken, in pots and traps, in all States. Crayfish fisheries have developed greatly since the 1939-45 War to take advantage of the market in the United States of America for frozen crayfish tails, the total catch increasing from approximately 3,000,000 lb. in 1945-46 to 26,300,000 lb. in 1958-59. Of the total catch in 1958-59, Western Australia produced two-thirds or 17,500,000 lb.

Prawns are taken by otter trawl, mainly in New South Wales and Queensland waters. In 1958-59, Queensland accounted for 3,500,000 lb. and New South Wales for 3,100,000 lb.

Approximately two-thirds of Australia's production of crabs is taken from Queensland waters.

Lobster production is restricted to a single freshwater species, *Euastacus serratus*, from New South Wales streams.

Details of production of crustaceans are shown by States in the table below on a gross weight basis for the year 1958-59.

CRUSTACEANS: PRODUCTION BY TYPE, 1958-59.

('000 lb. gross weight.)

Type.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Crayfish ..	(a) 473	(b) 1,294	(c) 25	4,250	17,517	(b) 2,755	26,314
Prawns ..	3,148	17	3,500	..	86	..	6,751
Crabs ..	262	..	606	..	38	..	906
Total ..	3,883	(b) 1,311	4,131	4,250	17,641	(b) 2,755	33,971

(a) Includes take of freshwater lobster. Tasmanian waters is included in Victoria.

(b) Catch of crayfish by Victorian fishermen in
(c) Shovel-nosed lobster (*Thenus orientalis*).

The following table contains details of production of crustaceans in Australia for the years 1954-55 to 1958-59.

CRUSTACEANS: PRODUCTION BY TYPE, AUSTRALIA.

('000 lb. gross weight.)

Type.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Crayfish(a)	20,207	18,456	18,905	21,991	26,314
Prawns	6,648	6,148	5,075	4,687	6,751
Crabs	813	870	835	826	906
Total	27,668	25,474	24,815	27,504	33,971

(a) Includes freshwater lobster.

4. **Molluscs (edible).**—Initially the Australian oyster fisheries depended solely upon the harvesting of naturally grown stock in littoral and submarine areas. However, the stocks soon deteriorated and attention was turned to methods of cultivation. This is carried on mainly in New South Wales where there has been constant improvement in methods and the present technique in certain areas is highly efficient. The Australian production (in shell) was 12,885,000 lb. in 1958-59, of which 12,390,000 lb. was produced in New South Wales and 407,000 lb. in Queensland. Particulars of the small quantities produced in Western Australia and Northern Territory are not available for publication.

Scallops are taken by dredge in Tasmanian waters and by trawl in Queensland waters. Tasmania was the dominant producer in 1958-59 with 4,735,000 lb. out of the total production of 4,786,000 lb. In addition, a small quantity was taken in Western Australia but particulars of this take are not available for publication.

Of the other molluscs taken, squid is the most important. Smaller quantities of cuttlefish, octopus, abalone and pipi have been taken from time to time.

Details of production of molluscs are shown by States in the table below on a gross (in shell) weight basis for the year 1958-59.

MOLLUSCS: PRODUCTION BY TYPE, 1958-59.

('000 lb. gross (in shell) weight.)

Type.	N.S.W.	Vic.	Qld.	W.A.	Tas.	N.T.	Aust.
Oysters	12,390	88	407	(a)	(b)	(a)	(c) 12,885
Scallops .. ..	..	..	51	(a)	4,735	..	(c) 4,786
Squid .. ..	..	118	90	17	..	..	225
Cuttlefish .. ..	..	..	..	57	..	..	57
Octopus .. ..	..	..	..	2	..	..	2
Total	12,390	206	548	(d) 76	4,735	(a)	(e) 17,955

(a) Not available for publication. (b) Less than 500 lb. (c) Excludes States marked (a).
 (d) Excludes oysters and scallops. (e) Excludes oyster production in Western Australia and Northern Territory and scallop production in Western Australia.

The table below shows details of total production of edible molluscs in Australia for the years 1954-55 to 1958-59.

MOLLUSCS: PRODUCTION BY TYPES, AUSTRALIA.

('000 lb. gross (in shell) weight.)

Type.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Oysters	(a) 10,415	(a) 9,561	(a) 10,264	(a) 10,562	(b) 12,885
Scallops	5,406	5,988	7,074	(a) 4,207	(a) 4,786
Squid	71	83	106	134	225
Cuttlefish .. ..	..	..	..	..	57
Octopus .. ..	..	..	..	..	2
Abalone .. ..	..	..	..	2	..
Total(c)	15,892	15,632	17,444	14,905	17,955

(a) Excludes Western Australia.

(b) Excludes Western Australia and Northern Territory.

(c) Incomplete; see notes to individual types.

5. **Pearl-shell and Trochus-shell.**—Pearl-shell and trochus-shell are taken from tropical waters of Australia, mostly during the period from April to January. In Western Australia, annual production is recorded for the year ended December, while in Queensland and Northern Territory the annual production is recorded for the year ended January. Statistics in this chapter are these annual production figures referred to the financial year ending 30th June following the close of the season.

Australia's pearling industry, which ceased operations on Japan's entry into the war in December, 1941, was faced at the end of hostilities, not only with a shortage of ships and gear, but also with the scarcity of expert labour, particularly divers. Before the war a large proportion of the key men were Japanese; the others were Malays, Chinese, Koepangers, Filipinos, Papuans and Torres Strait Islanders. The Commonwealth Government, with the view of overcoming this shortage, permitted in 1953 the employment of 35 Japanese divers, tenders and engine drivers in Australian luggers. By 31st January, 1959, the number of Japanese, employed mainly in Western Australia and in the Northern Territory, had grown to 161, out of a total number of 1,462 employed in the industry. Queensland with a more ready resource of labour from Torres Strait Islands was able to expand its fishing more rapidly and, in the 1949 season, achieved its highest post-war production of 1,191 tons. At 31st January, 1959, Queensland pearlers employed 746 Torres Strait Islanders in its total personnel of 964. Torres Strait Islanders represented more than half of the total number of 1,462 employed in the Australian pearl-fishing industry at that date.

Australia's pearl fishing takes place offshore to the 25 fathom line. In September, 1953, following the arrival of a Japanese pearl-fishing fleet in Australian waters, the Commonwealth Pearl Fisheries Act 1952-53 was brought into operation. This Act aims at the conservation of pearl-shell in accord with Australia's proclamation of sovereign rights over the natural resources of the sea bed and subsoil to the 100 fathom line. Japan disputed Australia's right to apply this legislation to foreign ships, and Australia agreed to refer the dispute to the International Court of Justice on condition that meantime Japanese pearling in Australian waters would be conducted in conformity with the Australian Government's policy of regulation and conservation, and that Japan would abide by the Court's decision. On these conditions, a Japanese pearling fleet has operated in prescribed waters since 1954.

In 1958-59, Australian production of pearl-shell and trochus-shell was 2,829,000 lb. and 916,000 lb. respectively. In addition, Japanese pearlers took 763,000 lb. of pearl-shell from Australian waters but as this was not landed in Australian ports it is not regarded as Australian production. The seasons of highest recorded production of pearl-shell have been—Queensland, 3,200,000 lb. in 1929; Western Australia, 4,480,000 lb. in 1917; and Northern Territory, 1,800,000 lb. in 1937.

In the following table, particulars of the quantity of pearl-shell and trochus-shell taken are shown for the years 1954–55 to 1958–59.

PEARL-SHELL AND TROCHUS-SHELL: QUANTITY TAKEN.

('000 lb.)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Pearl-shell(a)—					
Queensland(b)	896	1,142	1,127	1,131	889
Western Australia(c) ..	1,250	1,460	2,012	2,218	1,687
Northern Territory(b) ..	343	311	585	753	253
Australia	2,489	2,913	3,724	4,102	2,829
Trochus-shell—					
Queensland(b)	2,775	2,101	1,900	1,207	887
Western Australia(c) ..	9	13	11	22	29
Australia	2,784	2,114	1,911	1,229	916

(a) Excludes pearl-shell taken by the Japanese pearling fleet which operated in Australian waters, the quantities of which were as follows:—1954–55, 2,105,000 lb.; 1955–56, 1,657,000 lb.; 1956–57, 1,458,000 lb.; 1957–58, 1,572,000 lb.; 1958–59, 763,000 lb. (b) Season ended January of years shown. Shell taken by Queensland luggers operating in Northern Territory waters is included in Queensland. (c) Season ended December of years shown.

No complete particulars are available of production of natural pearls in Australia.

In 1956, the production of cultured pearls was introduced into Australia, with the establishment of a station at Augustus Island, off the northern coast of Western Australia. This station was later moved to a harbour, “Kuri Bay”, on Brecknock Island. This station, 130 miles north-east of Derby, produced its first crop of high quality pearls in 1958. Particulars of production of cultured pearls are not available for publication.

Exports of pearls (including cultured pearls) from Australia, were £62,000 in 1957–58 and £64,000 in 1958–59.

§ 4. Marketing and Distribution of Fish.

Most of the fish taken in Australian waters is sold in the metropolitan markets, although many of the fisheries are considerable distances from these centres. The arrangements for marketing of fresh fish vary from State to State and in some cases the State Government exercises a certain amount of control.

In New South Wales, marketing of fish is controlled by the Chief Secretary. The bulk of the State's catch is sold through the Sydney market, owned by municipal authorities but controlled by the Chief Secretary. A small branch market operates in Wollongong, and the eighteen fishermen's co-operatives also market fish in their own regions. By law, all fish for human consumption must be sold through a recognized market (i.e. Sydney, Wollongong or the co-operatives) unless ministerial consent for direct sale to consumers has been obtained.

In Victoria, there are no fish marketing regulations, and most of the catch, as well as considerable quantities of interstate fish, is sold at the main Melbourne market owned and controlled by the City of Melbourne. In addition, the eight fishermen's co-operatives engage in the wholesale and retail sale of fish within their own areas.

In Queensland, the Government Fish Board controls all marketing and in addition to the main Brisbane market, regulates the sale of fish through fifteen coastal markets and seven agencies extending along the coast from Southport to Port Douglas.

In South Australia, the Adelaide city fish market, the only one in the State, is owned and operated by the South Australian Fishermen's Co-operative. Of the total State catch, approximately 80 per cent. is handled by the co-operative, the balance being sold privately either to local or interstate fish agents.

In Western Australia, the Perth market is established as a government instrumentality but handles only a portion of the fish offered for sale in the main metropolitan area. Besides this, there are two other markets in Fremantle. One is conducted by the local fishermen's co-operative and the other by a private concern. Both are erected on land leased from the crown. Outside the main metropolitan area, marketing is conducted on a more or less private basis.

In Tasmania, there is no established market and the sale of fish is conducted on a private basis with fish agents playing a considerable part in the disposal of fish locally and to the mainland.

§ 5. Freezing, Processing and By-products.

1. **Freezing.**—Cold storage facilities, which were rather inadequate in the past, have, in most States, been improved and increased in recent years. In Queensland and New South Wales, particularly, most depots which have been established at fishing ports have now been equipped with cold storage space. In several States, there has been a development of establishments equipped for snap freezing of fish, in particular the freezing of crayfish tails, prawns and scallops for export. A number of vessels have also been equipped with freezing plants to process crayfish at sea.

2. **Processing.**—The attempt to establish the fish preserving industry at the commencement of this century met with little success although a bounty was paid to encourage production. The industry, however, continued to operate, but there was no marked development until about 1945–46 when the production of canned fish amounted to 1,700,000 lb. After that year, production increased considerably and reached a peak of 10,900,000 lb. in 1948–49, but gradually declined in subsequent years to 6,008,000 lb. in 1955–56. Production increased again in recent years and in 1958–59 was 7,687,000 lb.

In addition to the fish canned in 1958–59, 285,000 lb. of smoked fish, 1,699,000 lb. of fish paste, over 7,000,000 lb. of frozen crayfish tails for export, and a considerable quantity of quick-frozen fish for the local market were produced.

In 1939, New South Wales and Tasmania were the only States canning fish, but the industry has since been extended to Victoria, South Australia and Western Australia. Details of production are given in the following table for the years 1954–55 to 1958–59:—

FISH PROCESSING, AUSTRALIA.

('000 lb.)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of Factories	9	11	13	14	18
Fish Used (a)—					
Whole	3,081	3,528	8,072	9,293	10,603
Headed and/or Gutted	6,721	7,075	7,339	5,600	4,825
Estimated Live Weight Equivalent (b)	11,000	11,900	16,700	15,900	16,300
Production—					
Canned Fish (c)	6,645	6,008	8,257	7,856	7,782
Canned Oysters	8	..	(d)	(d)	(d)
Smoked Fish	66	123	487	439	286
Fish Paste	1,055	(d)	(d)	1,700	1,314
Fish Meal	270	(d)	(d)	(d)	(d)

(a) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters used for canning. (b) The weight of headed and/or gutted fish is taken as 85 per cent. of live weight. (c) Includes fish loaf, fish cakes, etc. (d) Not available for publication.

The varieties canned in the several States differ according to the species caught, but separate details for each variety are not available. In New South Wales, Australian salmon and tuna are the principal varieties. Barracouta is of major importance in Victoria and Tasmania, and Australian salmon predominates in South Australia and Western Australia. Small quantities of sea herrings (or ruff) are also canned in the latter State.

3. **By-products.**—Processing of offal for fish-meal, etc., has been established in certain States. The processing of livers for vitamin-rich oils was undertaken in several States but, as mentioned previously, production has fallen to a low level in recent years.

§ 6. Consumption of Fish.

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the table below for the years 1954–55 to 1958–59. For the purpose of compiling this table, the non-commercial fish catch has been estimated at ten per cent. of the recorded catch.

Fish is not a staple item in the diet of Australians and the consumption of fisheries' products remained at the comparatively low level of 9.7 lb. per head in 1958–59, more than half of this quantity being fresh or frozen fish.

ESTIMATED SUPPLIES OF FISH, ETC., AVAILABLE FOR CONSUMPTION, AUSTRALIA.

(lb. Edible Weight per Head per Annum.)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Fresh or Frozen—					
Fish—					
Australian Origin	3.4	3.0	3.3	3.1	3.1
Imported	1.8	1.9	1.8	2.1	2.2
Crustaceans and Molluscs ..	1.2	1.0	0.9	0.8	0.9
Cured (incl. Smoked and Salted) ..	1.0	1.1	0.5	1.3	0.8
Canned—					
Australian Origin	0.6	0.6	0.8	0.7	0.9
Imported	2.2	2.5	1.7	1.8	1.7
Total	10.2	10.1	9.0	9.9	9.7

§ 7. Boats and Equipment.

The boats for the on-shore fisheries are almost invariably small vessels fitted with low-powered petrol engines. The vessels working the reefs are larger (up to 50 feet) and have more power. The otter trawl vessels are steam trawlers, and the Danish seine vessels are 40 to 70 feet in length with diesel engines. The shark boats usually have diesel power and range from 35 to 50 feet in length.

The fishing equipment includes almost every possible type of gear, and appropriate boats are employed. The on-shore equipment includes mesh-nets, trawl-nets and traps

of various types. The demersal reef fishery is worked with traps, hand lines and long lines. The demersal flathead fishery is worked by both otter trawl (with Vigneron-Dahl gear) and Danish seine; in addition, some handlining is carried out. The demersal shark fishery is worked by long lines. The pelagic mackerel fishery employs trolling gear with lures of various types, while the pelagic barracouta fishery employs principally barbless jigs. Tuna is taken by trolling and, more recently, by pole fishing with live bait.

The following two tables show details of the number of boats, value of boats and equipment and persons employed in the taking of fish, crustaceans, molluscs (edible), pearl-shell and trochus-shell together with some other particulars of oyster fisheries.

It should be noted that because of variations in definitions and licensing procedures existing in the several States the data shown are not comparable between States. In some States, besides professional full-time fishermen, amateur part-time fishermen are licensed and the figures shown are overstated to this extent. These data should not be used as a guide to the relative effort applied in obtaining the recorded catch.

Figures of the numbers engaged full-time in fishing and whaling as recorded in recent population censuses are shown in § 2, page 1021.

FISHERIES: BOATS AND EQUIPMENT IN USE AND PERSONS ENGAGED, ETC., 1958-59.

Particulars.	Unit.	N.S.W.	Vic.	Qld.	S.A.	W.A. (a)	Tas.	N.T.	Aust.
General Fisheries (b)—									
Boats Engaged ..	No.	2,298	690	4,339	1,475	871	438	28	10,139
Value of Boats and Equipment ..	£'000	2,058	1,217	1,412	610	2,156	870	21	8,344
Persons Engaged ..	No.	2,165	929	9,498	5,927	1,503	923	75	21,020
Edible Oyster Fisheries—									
Boats Engaged ..	No.	1,079	4	38	..	(c)	(d)	(c)	(e) 1,121
Value of Boats and Equipment ..	£'000	359	(f)	11	..	(c)	(d)	(c)	(e) 370
Persons Engaged ..	No.	711	5	94	..	(c)	(d)	(c)	(e) 810
Leases Granted ..	"	4,725	5	235	..	..	..	..	4,965
Length of Foreshore in Leases ..	'000 yds.	851	16	(g)	..	..	..	..	(e) 867
Area of Offshore leases	Acres.	5,508	..	..	..	..	..	..	5,508
Pearl, Pearl-shell and Trochus-shell Fisheries (h)—									
Boats Engaged ..	No.	..	..	63	..	42	..	5	110
Value of Boats and Equipment ..	£'000	..	..	389	..	218	..	40	647
Persons Engaged ..	No.	..	..	964	..	419	..	36	1,419
Total, All Fisheries—									
Boats Engaged ..	No.	3,377	694	4,440	1,475	(i) 913	438	33	(e) 11,370
Value of Boats and Equipment ..	£'000	2,417	1,217	1,812	610	(i) 2,374	870	61	(e) 9,361
Persons Engaged ..	No.	2,876	934	10,556	5,927	(i) 1,922	923	111	(e) 23,249

(a) Year ended 31st December, 1958. (b) Excludes edible oyster fisheries, except in Tasmania, but includes crustacean and other mollusc fisheries. (c) Not available for publication. (d) Included in General Fisheries. (e) Incomplete; see footnotes to individual States. (f) Less than £500. (g) Not available. (h) Excludes Japanese pearling fleet which operated in Australian waters. (i) Excludes details for oyster fisheries.

**FISHERIES: BOATS AND EQUIPMENT IN USE AND PERSONS ENGAGED,
AUSTRALIA.**

Particulars.	Unit.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
General Fisheries(a)—						
Boats Engaged	No.	10,040	10,243	10,475	10,241	10,139
Value of Boats and Equip- ment	£'000.	6,240	6,606	7,039	7,476	8,344
Persons Engaged	No.	19,695	20,647	21,707	20,876	21,020
Edible Oyster Fisheries(b)—						
Boats Engaged	No.	1,094	790	1,031	1,070	1,121
Value of Boats and Equip- ment	£'000	123	115	160	167	(c) 370
Persons Engaged	No.	912	799	870	909	810
Leases Granted	"	5,660	5,474	5,452	5,042	4,965
Length of Foreshore in Leases(d)	'000 yds.	1,043	1,127	970	893	867
Area of Offshore Leases ..	Acres	6,547	5,251	6,037	5,415	5,508
Pearl, Pearl-shell and Trochus- shell Fisheries(e)						
Boats Engaged	No.	127	136	150	151	110
Value of Boats and Equip- ment	£'000	564	727	826	790	647
Persons Engaged	No.	1,506	1,571	1,742	1,487	1,419
Total, All Fisheries(e)(f)—						
Boats Engaged	No.	11,261	11,169	11,656	11,462	11,370
Value of Boats and Equip- ment	£'000	6,927	7,448	8,025	8,433	9,361
Persons Engaged	No.	22,113	23,017	24,319	23,272	23,249

(a) Excludes edible oyster fisheries except in Tasmania, but includes crustacean and other mollusc fisheries. (b) Excludes particulars for Western Australia, Tasmania and Northern Territory.

(c) Includes some equipment in New South Wales not previously valued. (d) Excludes Queensland. (e) Excludes Japanese pearling fleet which operated in Australian waters. (f) Excludes particulars for edible oyster fisheries in Western Australia and Northern Territory.

§ 8. Whaling.

The whaling industry was re-established in Australia in 1949, operations being carried out from shore-based stations. In that year, a station began operating at Point Cloates, Western Australia. The Australian Whaling Commission, established in 1949, built a station at Babbage Island near Carnarvon, Western Australia, and began operations towards the end of the 1950 season. In 1956, legislation was passed to dissolve the Commission and its assets were sold to the private company operating at Point Cloates. The operations of this company were transferred to Babbage Island and the Point Cloates station was closed in 1956. Other stations commenced operations in the following years: Cheynes Beach, near Albany (Western Australia) in 1952; Moreton Bay (Queensland) in 1952; Byron Bay (New South Wales) in 1954, and Norfolk Island in 1956.

Each of the stations operating is allowed a quota (in terms of humpback whales) imposed by the Minister for Primary Industry, acting on the advice of the Director of Fisheries who represents Australia on the International Whaling Commission. This catch quota was first introduced in Australia in 1951 and aims at conserving the stock of whales in order that the industry might continue on a stable basis.

Sperm whaling, which commenced in 1955 on an exploratory basis, is still being carried out on the Western Australian coast but the catch of this species is not subject to the quotas imposed.

The information summarized in the table below was supplied by the Commonwealth Fisheries Office. There is no prescribed season for sperm whaling but other details relate to seasons extending from 1st May to 31st October of each year.

WHALING STATISTICS: AUSTRALIA AND NORFOLK ISLAND.

Particulars.	Unit.	1955.	1956.	1957.	1958.	1959.
Seasonal Quota(a)	No.	1,840	1,990	1,960	1,960	2,080
Whales Taken(b)	"	1,840	1,990	1,961	1,812	1,673
Whales Processed(b)	"	1,840	1,990	1,961	1,812	1,673
Average Length of Whales Processed(b)	ft.	40.8	41.1	40.7	40.8	40.3
Average Production of Oil per Whale(b)	Barrel(c)	51.8	51.6	52.5	54.1	52.3
Persons Employed—						
At Sea	No.	124	124	140	157	165
Ashore	"	433	396	431	440	468
Whale Oil Produced—Quantity(b)	Barrel(c)	95,258	102,366	102,966	97,698	88,415
Whale Products—Value(b) ..	£'000	1,953	2,233	2,205	1,866	1,727

(a) In terms of humpback whales. For quota purposes, 2½ humpback whales are taken as equivalent to 1 blue whale, 2 fin whales, or 6 sei whales. (b) Excludes sperm whales. In 1959, 138 sperm whales were taken and processed, yielding 5,910 barrels of oil. (c) 6 barrels = 1 ton.

§ 9. Inquiries and Research.

1. **General.**—Research into the Australian fishing industry has been directed mainly towards seeking an explanation of the very slow rate of development and the conditions prevailing within the industry as well as the paucity of supplies available to the public. Details of the inquiries undertaken and the recommendations arising from them, will be found in Official Year Book No. 38, page 1082 whilst subsequent developments are outlined below.

2. **Commonwealth Scientific and Industrial Research Organization, Division of Fisheries and Oceanography.**—Details of the establishment, organization and functions of the Division of Fisheries of the Commonwealth Scientific and Industrial Research Organization will be found in Official Year Book No. 38, page 1083. The scientific basis on which the work of the Division is carried out has now been widened, and the name of the Division has been amended to "Division of Fisheries and Oceanography".

Research carried out by the Division has assisted greatly in the development and preservation of Australian fisheries. Details may be found in Official Year Book No. 41, page 848, and in previous issues.

3. **Commonwealth Fisheries Office.**—The Commonwealth Fisheries Office, a division of the Department of Primary Industry, arose out of a Tariff Board recommendation in 1941. Details of the establishment, organization and functions of the office will be found in Official Year Book No. 38, page 1084.

In accordance with the Tariff Board report, scientific research, as distinct from developmental and administrative functions, was left to the Commonwealth Scientific and Industrial Research Organization, which had established a Division of Fisheries for this purpose in 1937.

The Commonwealth is responsible for extra-territorial waters, whaling, pearling, rehabilitation of ex-servicemen in the fishing industry, fishery training schools, commercial development of fisheries, promotion of uniform conditions governing catches of various species of fish, economic research statistics, information and publications.

4. **Fisheries Development Trust Account.**—In early 1956, the assets of the Australian Whaling Commission, an authority set up by the Commonwealth Government in 1949, were disposed of to private interests. The finance derived from the sale, authorized by the Fishing Industry Act 1956, was paid into a fund, known as the Fisheries Development Trust Account. Provision was made in the Act for the moneys to be used for the purposes of developing the fishing industry through research, direct financial assistance, the development of particular fisheries, training schemes and the dissemination of information and advice through various publications and the press.

An Advisory Committee on fisheries development has been formed to advise the Minister on specific projects for fisheries development.

Projects which have so far been approved include:—

- (i) The purchase of a modern diesel trawler to investigate the commercial potentialities of trawling in the Great Australian Bight.

- (ii) A survey of the prawn resources off the east coast of Australia.
- (iii) A survey of the pilchard resources off the New South Wales coast.
- (iv) Barracouta survey in Bass Strait.
- (v) Crayfish survey off the south coast of Western Australia.

5. **North Australia Development Committee.**—In 1946, the North Australia Development Committee recommended that a hydrological and oceanographical survey should be made of North Australian waters. It also suggested that a biological survey should be made of the pearl oyster with particular reference to the possibility of instituting pearl culture.

Further reference to these and other recommendations may be found in Official Year Book No. 41, page 848.

The C.S.I.R.O. Division of Fisheries subsequently set up a biological research station on Thursday Island, mainly for the pearl and pearl-shell investigations. Since 1951, a research vessel has been based on Thursday Island and is used for diving, biological and hydrological work.

§ 10. Oversea Trade in Products of Fishing and Whaling.

1. **Imports of Fish.**—The value of edible fish and fish products imported in 1958–59 amounted to £6,140,000 compared with £6,146,000 in 1957–58.

In 1958–59, the live weight equivalent of fresh and processed fish imported was estimated to be equal to about 50–60 per cent. of the total Australian catch of fish, crustaceans and molluscs, the imports of canned fish being more than double the output of local factories. Of the total quantity of 24.6 million lb. of fresh fish imported in 1958–59, South Africa contributed 7.6 million lb., United Kingdom 5.4 million lb., New Zealand 5.1 million lb., and Denmark 3.2 million lb. A quantity of 16.8 million lb. of canned fish and fish products was imported in 1958–59 and of this, 6.9 million lb. originated in Japan, 3.6 million lb. in the United Kingdom and 2.6 million lb. in Norway. Particulars of the imports of fish and edible fisheries products are shown below for the years 1956–57 to 1958–59.

FISH, CRUSTACEANS AND MOLLUSCS: IMPORTS INTO AUSTRALIA.

Classification..	Quantity ('000 lb.)			Value (£A.'000 f.o.b. Port of Shipment).		
	1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
Fresh or Frozen(a)	18,799	23,163	24,618	1,514	2,163	2,405
Smoked or Dried	3,482	9,698	6,284	215	649	491
Salted	910	2,231	1,465	76	198	148
Potted or Concentrated (including Extracts)	76	148	117	23	42	34
Canned—						
Herrings	4,984	4,581	4,008	507	480	443
Salmon	5,514	6,761	7,407	1,158	1,460	1,518
Sardines and Pilchards ..	4,584	4,381	4,456	833	826	829
Crustaceans	218	496	449	72	191	171
Other(b)	1,403	898	476	184	137	101
Total Canned	16,703	17,117	16,796	2,754	3,094	3,062

(a) Includes crustaceans and molluscs. which is included with "Smoked or Dried".

(b) Includes canned molluscs. Excludes frozen smoked

2. **Exports of Fish.**—The value of edible fish and fish products exported (including that produced in other countries) amounted to £3,675,000 in 1958–59 compared with £2,809,000 in 1957–58. Crayfish tails accounted for £3,202,000 and £2,489,000 of the total exports in 1958–59 and 1957–58 respectively.

In 1958–59, exports of items other than crayfish tails remained at the low levels of earlier years, but crayfish tails increased in importance, 7.3 million lb. being exported. Nearly all of this quantity was exported to the United States of America and the Hawaiian Islands.

The following table shows details of the Australian exports of edible fisheries products for the years 1956-57 to 1958-59:—

FISH, CRUSTACEANS AND MOLLUSCS: EXPORTS FROM AUSTRALIA.

Particulars.	Quantity ('000 lb.)			Value (£A.'000 f.o.b. Port of Shipment).		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
Fresh or Frozen(a)—						
Crayfish tails	4,775	5,802	7,281	2,310	2,489	3,202
Oysters in shell	75	13	8	1	2	1
Other	754	802	1,423	200	207	366
Potted or Concentrated (including extracts)	(b)	2	2	(c)	(c)	(c)
Smoked or Dried	8	1	10	1	(c)	2
Salted	14	2	18	1	(c)	(c)
Canned—						
Fish(d)	413	441	474	81	86	86
Crustaceans and Molluscs ..	257	81	72	90	25	18
Total Canned	670	522	546	171	111	104

(a) Includes crustaceans and molluscs; excludes frozen smoked which is included with "smoked and dried". (b) Less than 500 lb. (c) Less than £500. (d) Includes exports of other than Australian produce amounting to:—136,000 lb. in 1956-57; 74,000 lb. in 1957-58; and 59,000 lb. in 1958-59.

3. Imports and Exports of Unmanufactured Shell.—In 1958-59, the unmanufactured shell imports were valued at £44,000 and exports at £832,000. Of the total value of exports, pearl-shell accounted for £612,000 and trochus-shell for £212,000

Imports of unmanufactured shell include quantities of pearl, trochus and green snail shell from New Guinea, Papua and the Pacific Islands which are subsequently re-exported from Australia.

The following table shows for Australia details of unmanufactured shell imported and exported during the years 1956-57 to 1958-59.

UNMANUFACTURED SHELL: IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	Quantity ('000 lb.)			Value (£A.'000 f.o.b. Port of Shipment).		
	1956-57.	1957-58.	1958-59.	1956-57.	1957-58.	1958-59.
IMPORTS.						
Total unmanufactured shell ..	633	299	227	122	46	44
EXPORTS.						
Pearl	3,703	3,899	2,840	1,049	1,032	612
Trochus	2,149	1,628	1,405	504	254	212
Other (a)	153	100	67	35	14	8
Total	6,005	5,627	4,312	1,588	1,300	832

(a) Mainly green snail shell previously imported from other countries. Includes green snail and other shell taken in Australian waters for which production particulars are not available.

4. **Imports and Exports of Marine Animal Oils.**—In 1958–59, the value of imports of marine animal oils was £232,000, while exports of these products amounted to £1,156,000.

Of the total quantity of 318,000 gals. of whale oil imported in 1958–59, 257,000 gals. originated from Norfolk Island. Imports of other marine animal oils consisted of 59,000 gals. of cod liver oil, 87,000 gals. of unrefined fish oils and 30,000 gals. of other marine animal oils.

Of the total exports of whale oil of 3,373,000 gals., 1,917,000 gals. were shipped to the United Kingdom.

The table hereunder shows for Australia particulars of marine animal oils imported and exported during the years 1956–57 to 1958–59.

MARINE ANIMAL OILS: IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	Quantity ('000 gals.)			Value (£A.'000 f.o.b. Port of Shipment).		
	1956–57.	1957–58.	1958–59.	1956–57.	1957–58.	1958–59.
IMPORTS.						
Whale(a)	338	335	318	139	153	125
Other	195	152	176	114	108	107
Total	533	487	494	253	261	232
EXPORTS.						
Whale	3,428	4,022	3,373	1,489	1,673	1,144
Other	3	3	30	1	22	12
Total	3,431	4,025	3,403	1,490	1,695	1,156

(a) Principally from Norfolk Island.

CHAPTER XXVII.

MINERAL INDUSTRY.

§ 1. Introduction.

1. **Sources of Statistics.**—In the main, the data contained in this chapter consist of official statistics of the Mines Departments of the several States and of the Northern Territory Mines Branch. The particulars shown have been compiled as far as practicable on the standardized basis which has been used in Australia since 1950 and this presentation has involved some rearrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Commonwealth Bureau of Mineral Resources, the Joint Coal Board, the Australian Mines and Metals Association (Inc.), the Mineral Resources Division of the United Kingdom Overseas Geological Surveys and from several other sources.

2. **Presentation of Mineral Statistics.**—(i) *Mineral Industry Data.* The mineral industry includes all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc. Ore-dressing and elementary smelting of metallic minerals (e.g., in the case of gold) and miscellaneous treatment of non-metallic minerals, where these are carried out in an associated plant at or near the mine, are included in the mineral industry. However, establishments primarily engaged in smelting and/or refining (including the smelting and refining sections of the large plants operated at Mt. Morgan and Mt. Isa in Queensland and at Mt. Lyell in Tasmania) are omitted and classified to the manufacturing industry.

For mines and quarries which produce more than one product, it is not possible to apportion some particulars relating to the operations of the mine (employment, salaries and wages paid, and costs incurred in production) to the minerals produced. It is, therefore, the practice to record these data only as a total for each mine and then to classify each mine to the industry of the most important mineral produced. Thus a mine producing, say, both tin and tungsten minerals, would be classified as a tin mine if tin were the more important product by value, or vice versa if tungsten were the dominant product.

The mineral industries are classified into four major groups, namely, Metal Mining, Fuel Mining, Non-metal (excluding Fuel) Mining, and Construction Material Quarrying.

Mineral industry data are obtained annually from the Mining and Quarrying Census, which collection was first made in 1952. This census is carried out in collaboration with the several Mines Departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the Bulletin *Primary Industries, Part II.*, No. 52, 1957–58, pages 45 and 46. For smaller mines, either simplified Census returns covering number of persons employed and value of output are collected or these particulars are compiled from data made available by the Mines Departments.

Particulars of the uranium-mining industry are excluded, as are operations associated with the exploration for minerals, e.g. oil-search.

(ii) *Mineral Product Data.* In the preparation of Australian mineral production statistics, the quantities and values of individual minerals produced are reported in terms of the products in the form in which they are dispatched from the locality of each mine. For example, in the case of a metal mine, the output is recorded as ore when no treatment is undertaken at the mine, or as a concentrate where ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the contents of metallic minerals and contents or average grade of selected non-metallic minerals are reported. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a "pay metal" or a "refiners' prize" when present in the particular mineral. Other metallic contents which are not recovered are excluded.

Minerals are divided into four major groups, namely, Metals, Fuels, Non-metals (excluding Fuels) and Construction Materials. In this chapter, individual mineral products are arranged in these four groups.

Particulars relating to uranium-bearing minerals are excluded.

3. **Occurrences of Minerals.**—The greatest part of the area of outcropping rock on the Australian continent is Precambrian in age. These basement rocks form the western and central core of the continent and are flanked by younger Palaeozoic rocks which, along the eastern edge of the continent, form a belt several hundred miles wide extending from North Queensland to Tasmania. Smaller areas of Palaeozoic rocks occur in other States. Mesozoic sediments overlies large areas of the continent and reach their greatest development in central Queensland. Cainozoic rocks occur mainly in the southern parts of Victoria and South Australia and as residual basalt cappings over an extensive area of the Palaeozoic rocks of eastern Australia.

Minerals occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralization is perhaps more varied but the deposits now being worked are in general smaller than those found in Precambrian rocks. Most of the larger deposits of minerals now being mined in Australia are shown in the following table according to the geological era in which they were formed.

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS.

Age of Geological Formation in which Located.	Metal or Mineral.	State or Territory.	Locality.
Precambrian (more than 520 million years old)	Copper ..	Queensland ..	Mt. Isa
	Gold ..	Northern Territory	Tennant Creek
		Western Australia	Kalgoorlie, and other localities
	Iron ..	South Australia ..	Middleback Ranges
		Western Australia	Yampi Sound
	Lead-Silver-Zinc	New South Wales	Broken Hill
Palaeozoic (between 200 and 520 million years old)		Queensland ..	Mt. Isa
	Uranium ..	Queensland ..	Mary Kathleen
		South Australia ..	Radium Hill
		Northern Territory	Rum Jungle and South Alligator River Area
	Black Coal ..	New South Wales	Hunter Valley, Lithgow, South Coast
		Queensland ..	Baralaba, Blair Athol, etc.
		Western Australia	Collie
	Copper-Gold ..	Queensland ..	Mt. Morgan
		Tasmania ..	Mt. Lyell
	Lead-Silver-Zinc	New South Wales	Captain's Flat
		Tasmania ..	Mt. Read and Rosebery
	Tin (lode) ..	Queensland ..	Herberton
Mesozoic (between 75 and 200 million years old)		Tasmania ..	North-east of State
		Tasmania ..	King Island and North-east of State
	Black Coal ..	Queensland ..	Ipswich
		South Australia ..	Leigh Creek
		Tasmania ..	St. Marys
Cainozoic (less than 75 million years old)	Mineral Sands(a)	New South Wales	North Coast
		Queensland ..	South Coast
	Brown Coal ..	Victoria ..	Gippsland
	Tin (alluvial) ..	New South Wales	Tingha
		Queensland ..	Herberton
		Tasmania ..	North-east of State

(a) The deposition of mineral sands, derived from Palaeozoic granites, continued throughout the Cainozoic Era.

The extensive bauxite (aluminium) deposits of Cape York Peninsula in Queensland are to be worked shortly. These were formed during the early part of the Cainozoic Era as a result of climatic conditions then prevailing.

Of the non-metallic minerals, many, such as clay, sand and silica, etc., are not restricted to the rocks of any particular era. However, Precambrian rocks do contain important deposits of asbestos in Western Australia, limestone and dolomite in South Australia, and mica in the Northern Territory. Crude salt is harvested in pans from which water has been evaporated.

4. Mineral Concentrates.—Concentration is a physical process involving the removal of mineral impurity from the ore. Most mines now dispatch ore in concentrate form as this considerably reduces the transport costs and produces a saleable product in the form required by smelters. Most concentrates are nearly pure mineral and the ore dressing processes (with the exception of that for uranium) involve no chemical change to the mineral being won. Various methods are used in concentration. Sulphide ores which now comprise the greatest tonnages treated are, in most instances, separated from the gangue by flotation. In this method of concentration, the ore is ground finely enough to liberate the individual mineral particles, aerated and agitated in tanks of water to which chemicals have been added. Under certain conditions, particles of one sulphide mineral adhere to the froth bubbles and are collected in the froth overflow, while gangue and even other sulphides are depressed. By treating the tailings of one flotation process with different chemicals and conditions it is often possible to separate a further concentrate, as is done at Broken Hill where the zinc sulphide is recovered from the tailings of the lead sulphide concentration process. Differential flotation is most extensively developed at Captain's Flat, in New South Wales, where successive concentrates of copper, lead, zinc and pyrite are obtained from a lead-silver-zinc-copper ore. Tailings from the lead flotation at Captain's Flat are passed over corduroy strakes to recover free gold in concentrate form.

Other methods of concentration used are gravity (alluvial tin, mineral sands, some lead-zinc ores), electromagnetic (wolfram, scheelite, glauconite and mineral sands) and electrostatic (mineral sands).

Particulars of an average Broken Hill ore mined during 1958, showing metal contents before and after differential flotation, are shown in the following table. It should be noted that in both the ore and the concentrate, lead and zinc are contained as the minerals lead sulphide and zinc sulphide respectively. Most of the silver is contained in minerals which are collected with the lead sulphide.

ORE TREATED AND CONCENTRATES PRODUCED BY DIFFERENTIAL FLOTATION AT BROKEN HILL (a): 1958.

Particulars.	Quantity.	Proportion of weight of ore mined.	Average Assays.			Proportion of Metal Distribution.		
			Lead.	Silver.	Zinc.	Lead.	Silver.	Zinc.
	tons.	%	%	f. oz.	%	%	%	%
Ore treated ..	1,895,566	100	12.7	4.7	11.5	100.0	100.0	100.0
Lead Concentrate	309,345	16.3	74.5	26.2	4.5	95.7	91.0	6.4
Zinc Concentrate	373,880	19.7	1.0	0.9	51.4	1.6	3.7	88.1
Residues(b) ..	1,212,341	64.0	0.5	0.4	1.0	2.7	5.3	5.5

(a) Average particulars for the five operating companies. (b) These are of no economic use at present and are either pumped as filling for underground workings or otherwise discarded.

§ 2. The Mineral Industry.

1. Persons Engaged.—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "mining and quarrying" are shown together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED, AUSTRALIA.

Particulars.	At 30th June—	
	1947.	1954.
Persons Engaged in—		
Mining and Quarrying No.	57,574	62,107
All Primary Industries No.	563,697	560,100
Total Work force No.	3,196,431	3,702,022
Persons Engaged in Mining and Quarrying as a proportion of—		
All Primary Industries %	10.2	11.1
Total Work force %	1.8	1.7

The number of persons engaged in the mining and quarrying industries represents approximately ten per cent. of the total number of persons engaged in all primary industries and less than two per cent. of the total workforce of Australia.

Particulars of the numbers of persons engaged in the various mining and quarrying industries, as collected in the Annual Mining and Quarrying Census, are included in paras. 4 (ii), page 1043, and 4 (iii), page 1044.

2. **Size Classification of Mines and Quarries.**—Most of the mines and quarries worked during 1958 employed less than four persons, including working proprietors. However, more than half of the persons engaged in mining and quarrying were in the 60 mines each employing two hundred persons or more. The following table shows the total number of mines grouped according to sizes in accordance with the average number of persons employed during the period worked by each mine in 1958. The details of persons employed are not directly comparable with the Population Census figures shown in the preceding table. For particulars of the method of compiling these industry statistics, see para. 2 (i), page 1037.

MINING AND QUARRYING: SIZE CLASSIFICATION OF ESTABLISHMENTS, 1958.

Mines and Quarries employing on the average(a)—	N.S.W.	Vic. (b)	Qld.	S.A.	W.A.	Tas.	N.T.	Aust. (b) (c)
Less than 4 persons—								
Establishments ..	513	72	243	290	215	63	35	1,431
Persons ..	759	129	436	478	549	117	84	2,552
From 4 to 20 persons—								
Establishments ..	164	106	92	105	66	28	7	571
Persons ..	1,283	956	916	807	534	250	77	4,844
From 21 to 200 per- sons—								
Establishments ..	93	34	74	15	22	15	4	258
Persons ..	6,667	1,618	(d)	(d)	1,485	800	356	15,040
More than 200 per- sons—								
Establishments ..	38	3	4	2	10	3	..	60
Persons ..	16,564	1,673	(d)	(d)	5,093	1,536	..	29,267
Total—								
Establishments ..	808	215	413	412	313	109	46	2,320
Persons ..	25,273	4,376	8,563	2,565	7,661	2,703	517	51,703

(a) Includes working proprietors, particulars for which are not available, available for publication; included in totals.

(b) Excludes 13 salt producers in Victoria, employment

(c) Includes Australian Capital Territory.

(d) Not

3. **Value of Production.**—(i) *General.* In 1958, the local value of mining and quarrying in Australia (the value of output, or the selling value of mine and quarry products at the mine or quarry) was £155,955,000, or 11.7 per cent. of the production of all primary industries. The most important State was New South Wales with £71,414,000, followed by Queensland with £27,632,000 and Western Australia with £20,777,000.

(ii) *Local and Net Values of Production, 1958.* Local and net values of mining and quarrying production for each State are shown for 1958 in the following table. A more detailed reference to the value of production of mining and quarrying and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

MINING AND QUARRYING: LOCAL AND NET VALUES OF PRODUCTION, 1958.
(£'000.)

State or Territory.	Local Value (Value of Output at Mine or Quarry.)	Costs of Power, Fuel and Light, and Materials and Stores Used.	Net Value. (a)
New South Wales	71,414	15,613	55,801
Victoria	13,694	2,707	10,987
Queensland	27,632	7,836	19,796
South Australia	12,308	2,309	9,999
Western Australia	20,777	6,323	14,454
Tasmania	7,358	2,190	5,168
Northern Territory	2,564	567	1,997
Australian Capital Territory ..	208	74	134
Australia	155,955	37,619	118,336

(a) Local value less costs of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted.

(iii) *Local Values, 1954 to 1958.* In the following table, the local values of mining and quarrying production are shown by States and Territories for the years 1954 to 1958:—

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION.(a)
(£'000.)

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1954 ..	78,202	10,080	21,602	8,580	20,736	8,955	1,145	103	149,403
1955 ..	84,244	10,917	26,892	10,512	19,746	10,744	1,691	125	164,871
1956 ..	88,790	11,891	30,204	11,910	20,230	10,555	2,594	146	176,320
1957 ..	83,170	12,728	25,576	11,872	20,979	8,421	2,195	170	165,111
1958 ..	71,414	13,694	27,632	12,308	20,777	7,358	2,564	208	155,955

(a) Value of output or selling value of products at the mine or quarry.

(iv) *Net Values of Production, 1954 to 1958.* In the following table, the net value of production of mining and quarrying products and the value per head of population are shown by States and Territories for the years 1954 to 1958.

MINING AND QUARRYING: NET VALUE OF PRODUCTION.(a)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE OF PRODUCTION.(a) (£'000.)									
1954	63,965	8,146	15,934	7,101	14,776	7,057	1,028	80	118,087
1955	69,262	8,869	21,732	8,452	14,143	8,612	1,377	63	132,510
1956	72,053	9,457	24,148	9,487	14,350	8,298	2,084	105	139,982
1957	66,091	9,944	18,810	9,320	14,889	5,897	1,741	110	126,802
1958	55,801	10,987	19,796	9,999	14,454	5,168	1,997	134	118,336

NET VALUE OF PRODUCTION(a) PER HEAD OF POPULATION.
(£.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1954	18.5	3.3	12.0	8.8	22.8	22.6	62.2	2.6	13.0
1955	19.7	3.5	16.1	10.1	21.1	27.0	78.8	1.9	14.2
1956	20.1	3.6	17.5	11.0	21.0	25.4	113.6	2.9	14.7
1957	18.1	3.7	13.4	10.5	21.3	17.7	91.5	2.8	13.0
1958	15.0	3.9	13.9	11.0	20.3	15.1	101.5	3.2	11.9

(a) Local value, or value of output, less cost of power, fuel and light, and other materials and stores used; depreciation and maintenance costs have not been deducted.

4. Statistics of the Principal Mining and Quarrying Industries.—(i) *Summary, 1958.* In the next table, statistics of numbers of mines and quarries, persons employed, local and net value of production and other particulars are shown for the major industry groups for the year 1958. For particulars of the method of compiling these industry statistics, see para. 2 (i), page 1037.

MINING AND QUARRYING: SUMMARY OF INDUSTRY PARTICULARS,
AUSTRALIA, 1958.

Industry Group.	Mines and Quarries.	Persons Employed. (a)	Salaries and Wages Paid. (b)(c)	Local Value of Production. (d)	Total Fuel, Materials, etc., Used.	Net Value of Production. (e)	Value of Additions and Replacements to Fixed Assets.(b)
	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
Metal Mining ..	708	20,495	25,488	70,190	20,770	49,420	7,159
Fuel Mining ..	234	22,335	26,195	57,076	11,148	45,928	10,221
Non-metal (excluding Fuel) Mining(f) ..	645	2,728	2,384	10,160	2,389	7,771	1,283
<i>Total Mining ..</i>	<i>1,587</i>	<i>45,558</i>	<i>54,067</i>	<i>137,426</i>	<i>34,307</i>	<i>103,119</i>	<i>18,663</i>
Construction Material Quarrying(g) ..	746	4,581	3,241	18,529	3,312	15,217	825
<i>Total All Mining and Quarrying</i>	<i>2,333</i>	<i>50,139</i>	<i>57,308</i>	<i>155,955</i>	<i>37,619</i>	<i>118,336</i>	<i>19,488</i>

(a) Average number employed (including working proprietors) during whole year. (b) Excludes mines and quarries employing less than four persons. (c) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (d) Value of output or selling value of products at mine or quarry. (e) Local value less costs of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted. (f) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g., clays and salt). (g) Incomplete owing to difficulties of coverage.

In the next table, statistics of numbers of mines and quarries, persons employed, local and net value of production are shown for each State, the Northern Territory and the Australian Capital Territory for the year 1958:—

MINING AND QUARRYING: SUMMARY OF OPERATIONS, 1958.

State or Territory.	Mines and Quarries.	Persons Employed. (a)	Salaries and Wages Paid. (b)(c)	Local Value of Production. (d)	Total Fuel, Materials, etc., Used.	Net Value of Production. (e)	Value of Additions and Replacements to Fixed Assets. (b)
	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	808	24,984	28,903	71,414	15,613	55,801	8,772
Victoria ..	228	4,302	4,521	13,694	2,707	10,987	2,958
Queensland ..	413	8,276	9,632	27,632	7,836	19,796	3,568
South Australia ..	412	1,987	1,909	12,308	2,309	9,999	1,030
Western Australia ..	313	7,451	8,510	20,777	6,323	14,454	2,295
Tasmania ..	109	2,594	3,147	7,358	2,190	5,168	600
Northern Territory ..	46	507	634	2,564	567	1,997	258
Aust. Cap. Territory ..	4	38	52	208	67	134	7
Australia ..	2,333	50,139	57,308	155,955	37,619	118,336	19,488

(a) Average number employed (including working proprietors) during whole year. (b) Excludes mines and quarries employing less than four persons. (c) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (d) Value of output or selling value of products at mine or quarry. (e) Local value less costs of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted.

(ii) *Employment in Mining and Quarrying, 1958.* The following table shows the average numbers engaged in the various mining industries in each State in 1958.

MINING AND QUARRYING: EMPLOYMENT, (a) 1958.

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal Mining—									
Gold Mining ..	74	268	153	2	5,189	..	215	..	5,901
Silver-Lead-Zinc Mining ..	6,221	..	(b)	(b)	41	(b)	..	..	9,461
Copper-Gold Mining ..	46	..	(b)	(b)	165	(b)	199	..	2,057
Tin Mining ..	135	..	328	..	36	434	11	..	944
Mineral Sands Mining ..	640	..	348	..	114	..	..	..	1,102
Other Metal Mining ..	59	13	12	(b)	295	(b)	22	..	1,030
Total, Metal Mining	7,175	281	(b)	(b)	5,840	2,014	447	..	20,495
Fuel Mining—									
Black Coal Mining—									
Underground ..	15,206	516	3,157	..	943	(c) 292	..	..	c 20,114
Open-cut ..	257	..	138	230	56	..	..	..	681
Total ..	15,463	516	3,295	230	999	292	..	..	20,795
Brown Coal Mining ..	..	1,540	..	..	..	..	..	..	1,540
Total, Fuel Mining	15,463	2,056	3,295	230	999	292	..	..	22,335
Non-metal (excluding Fuel) Mining(d) ..	1,062	273	(b)	(b)	390	165	27	(e)	2,728
Total, All Mining	23,700	2,610	7,783	1,291	7,229	2,471	474	(e)	45,558
Construction Material Quarrying(f) ..	1,284	1,692	493	696	222	123	33	38	4,581
Total, All Mining and Quarrying ..	24,984	4,302	8,276	1,987	7,451	2,594	507	38	50,139

(a) Average employment during whole year, including working proprietors. (b) Not available for publication. (c) Includes persons engaged by one mine which has both underground and open-cut workings. (d) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g. clays and salt). (e) Not available for publication; included with "Construction Material Quarrying". (f) Incomplete owing to difficulties of coverage.

(iii) *Employment in Mining and Quarrying, 1954 to 1958.* The following table shows particulars of mining employment in Australia for the years 1954 to 1958. The figures show the average number of persons employed during the whole year.

MINING AND QUARRYING: EMPLOYMENT,(a) AUSTRALIA.

Industry.	1954.	1955.	1956.	1957.	1958.
<i>Metal Mining—</i>					
Gold Mining	7,192	6,753	6,488	6,205	5,901
Silver-Lead-Zinc Mining	9,397	10,076	10,627	10,354	9,461
Copper-Gold Mining	1,998	2,127	2,301	2,151	2,057
Tin Mining	969	937	938	856	944
Mineral Sands Mining	598	891	1,592	2,062	1,102
Other Metal Mining	1,253	1,273	1,407	1,300	1,030
<i>Total, Metal Mining</i>	<i>21,407</i>	<i>22,057</i>	<i>23,353</i>	<i>22,928</i>	<i>20,495</i>
<i>Fuel Mining—</i>					
Black Coal Mining	26,614	25,660	23,895	22,345	20,795
Brown Coal Mining	1,598	1,502	1,566	1,579	1,540
<i>Total, Fuel Mining</i>	<i>28,212</i>	<i>27,162</i>	<i>25,461</i>	<i>23,924</i>	<i>22,335</i>
<i>Non-metal (excluding Fuel) Mining(b)</i> ..	<i>2,722</i>	<i>2,678</i>	<i>2,708</i>	<i>2,749</i>	<i>2,728</i>
<i>Total, All Mining</i>	<i>52,341</i>	<i>51,897</i>	<i>51,522</i>	<i>49,601</i>	<i>45,558</i>
<i>Construction Material Quarrying(b)</i> ..	<i>4,121</i>	<i>4,197</i>	<i>4,329</i>	<i>4,640</i>	<i>4,581</i>
Total, All Mining and Quarrying ..	56,462	56,094	55,851	54,241	50,139

(a) Average employment during whole year, including working proprietors.

(b) Incomplete.

(iv) *Salaries and Wages Paid in Mining, 1954 to 1958.* Salaries and wages paid in the mining and quarrying industries in Australia during each year 1954 to 1958 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in Chapter XII.—Labour, Wages and Prices (p. 419) and also in the *Labour Report*.

MINING AND QUARRYING: SALARIES AND WAGES PAID,(a) AUSTRALIA.
(£'000.)

Industry.	1954.	1955.	1956.	1957.	1958.
<i>Metal Mining—</i>					
Gold Mining	6,450	6,344	6,551	6,422	6,492
Silver-Lead-Zinc Mining	12,761	15,154	17,299	16,241	13,462
Copper-Gold Mining	1,786	1,867	2,114	2,289	2,362
Tin Mining	704	734	733	753	737
Mineral Sands Mining	512	819	1,644	2,177	1,327
Other Metal Mining	1,095	1,328	1,504	1,402	1,108
<i>Total, Metal Mining</i>	<i>23,308</i>	<i>26,246</i>	<i>29,845</i>	<i>29,284</i>	<i>25,488</i>
<i>Fuel Mining—</i>					
Black Coal Mining	25,988	26,065	25,862	25,105	24,501
Brown Coal Mining	1,557	1,761	1,649	1,640	1,694
<i>Total, Fuel Mining</i>	<i>27,545</i>	<i>27,826</i>	<i>27,511</i>	<i>26,745</i>	<i>26,195</i>
<i>Non-metal (excluding Fuel) Mining(b)</i> ..	<i>1,620</i>	<i>2,105</i>	<i>2,300</i>	<i>2,400</i>	<i>2,384</i>
<i>Total, All Mining</i>	<i>52,473</i>	<i>56,177</i>	<i>60,216</i>	<i>58,429</i>	<i>54,067</i>
<i>Construction Material Quarrying(b)</i> ..	<i>2,045</i>	<i>2,439</i>	<i>2,738</i>	<i>3,219</i>	<i>3,241</i>
Total, All Mining and Quarrying ..	54,518	58,616	62,394	61,648	57,308

(a) Excludes mines and quarries employing less than four persons.

(b) Incomplete.

(v) *Accidents in Mining.* Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States as varying criteria are used in determining what constitutes injury for the purpose of these records. In 1958, 44 persons were recorded as having been killed and 1,553 as having been injured in mining (excluding quarrying) accidents. Of the total of 44 persons killed, 13 were in black coal mines, 12 in gold mines and 8 in silver-lead-zinc mines. Reported injuries were highest in black coal mines (442), gold mines (392), and silver-lead-zinc mines (411).

(vi) *Local and Net Values of Mining and Quarrying Production, 1958.* The following two tables show particulars of the local and net value of production of individual mining and quarrying industries and for all mining and quarrying for the year 1958. It should be noted that these statistics are on an industry basis and not by product. For particulars of the method of compiling these industry statistics see para. 2 (i), page 1037.

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION,(a) 1958.

(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Metal Mining—</i>									
Gold Mining ..	102	694	274	1	14,330	..	900	..	16,301
Silver-Lead-Zinc Mining ..	19,093	..	(b)	(b)	125	(b)	..	..	33,414
Copper-Gold Mining ..	15	..	(b)	(b)	163	(b)	1,281	..	6,704
Tin Mining ..	190	..	756	..	75	766	1	..	1,788
Mineral Sands Mining ..	2,738	..	2,306	..	296	..	..	..	5,340
Other Metal Mining ..	128	19	99	(b)	1,160	(b)	73	..	6,643
<i>Total, Metal Mining</i>	<i>22,266</i>	<i>713</i>	<i>18,368</i>	<i>4,340</i>	<i>16,149</i>	<i>6,099</i>	<i>2,255</i>	<i>..</i>	<i>70,190</i>
<i>Fuel Mining—</i>									
Black Coal Mining ..	39,979	528	7,231	1,017	2,281	622	..	..	51,658
Brown Coal Mining ..	..	5,418	..	..	..	..	..	..	5,418
<i>Total, Fuel Mining ..</i>	<i>39,979</i>	<i>5,946</i>	<i>7,231</i>	<i>1,017</i>	<i>2,281</i>	<i>622</i>	<i>..</i>	<i>..</i>	<i>57,076</i>
<i>Non-metal (excluding Fuel) Mining—</i>									
Clays(c) ..	871	1,049	112	287	(b)	(b)	..	(d)	2,629
Gypsum ..	171	61	..	384	40	..	..	..	656
Limestone ..	1,131	615	(b)	1,056	(b)	281	..	..	3,673
Salt ..	..	100	(b)	672	(b)	..	12	..	878
Other Non-metal (excluding Fuel) Mining	565	7	33	444	(b)	(b)	47	..	2,324
<i>Total, Non-metal (excluding Fuel) Mining ..</i>	<i>2,738</i>	<i>1,832</i>	<i>696</i>	<i>2,843</i>	<i>1,626</i>	<i>366</i>	<i>59</i>	<i>(d)</i>	<i>10,160</i>
<i>Total, All Mining ..</i>	<i>64,983</i>	<i>8,491</i>	<i>26,295</i>	<i>8,200</i>	<i>20,056</i>	<i>7,087</i>	<i>2,314</i>	<i>(d)</i>	<i>137,426</i>
<i>Construction Material Quarrying(c) ..</i>	<i>6,431</i>	<i>5,203</i>	<i>1,337</i>	<i>4,108</i>	<i>721</i>	<i>271</i>	<i>250</i>	<i>208</i>	<i>18,529</i>
<i>Total, All Mining and Quarrying ..</i>	<i>71,414</i>	<i>13,694</i>	<i>27,632</i>	<i>12,308</i>	<i>20,777</i>	<i>7,358</i>	<i>2,564</i>	<i>208</i>	<i>155,955</i>

(a) Value of output or selling value of products at the mine or quarry. (b) Not available for publication. (c) Incomplete. (d) Not available for publication; included with "Construction Material Quarrying".

MINING AND QUARRYING: NET VALUE OF PRODUCTION, (a) 1958.
(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal Mining—									
Gold Mining ..	69	547	214	1	9,704	..	796	..	11,331
Silver-Lead-Zinc Mining ..	13,288	..	(b)	(b)	100	(b)	..	..	23,389
Copper-Gold Mining ..	(c) 24	..	(b)	(b)	79	(b)	915	..	3,735
Tin Mining ..	156	..	480	..	23	607	1	..	1,267
Mineral Sands Mining ..	2,168	..	1,661	..	230	..	..	..	4,059
Other Metal Mining ..	108	19	93	(b)	881	(b)	62	..	5,639
Total, Metal Mining	15,765	566	(b)	(b)	11,017	4,182	1,774	..	49,420
Fuel Mining—									
Black Coal Mining ..	31,558	376	6,100	841	1,753	494	..	..	41,122
Brown Coal Mining ..	..	4,806	..	..	..	..	..	..	4,806
Total, Fuel Mining	31,558	5,182	6,100	841	1,753	494	..	..	45,928
Non-metal (excluding Fuel) Mining—									
Clay(d) ..	715	1,009	96	261	(b)	(b)	..	(e)	2,382
Gypsum ..	122	45	..	275	34	..	..	..	476
Limestone ..	752	264	(b)	896	(b)	205	..	..	2,482
Salt ..	..	(f) 100	(b)	544	(b)	..	12	..	(g) 720
Other Non-metal (excluding Fuel) Mining ..	458	7	32	(b)	(b)	(b)	44	..	1,711
Total, Non-metal (excluding Fuel) Mining	2,047	1,425	(b)	(b)	1,134	280	56	(e)	7,771
Total, All Mining	49,370	7,173	18,908	6,978	13,904	4,956	1,830	(e)	103,119
Construction Material Quarrying(d) ..	(f) 6,431	3,814	888	3,021	550	212	167	134	g 15,217
Total, All Mining and Quarrying	55,801	10,987	19,796	9,999	14,454	5,168	1,997	134	118,336

(a) Local value (i.e., value of output at mine) less costs of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Not available for publication. (c) Costs of materials used, etc., exceed value of output. (d) Incomplete.

(e) Not available for publication; included with "Construction Material Quarrying". (f) No allowance has been made for costs of power, fuel, light and other materials and stores used, particulars for which are not available. (g) See footnote (f).

§ 3. Mineral Production.

1. Quantities of Principal Minerals Produced in 1958.—In the following table, particulars of the quantities of the principal minerals produced during 1958 are shown for each State and the Northern Territory:—

QUANTITIES OF PRINCIPAL MINERALS PRODUCED, 1958.

Mineral.	Unit.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust. (a)
METALLIC MINERALS.									
Antimony Ore and Concentrate ..	ton	1,114	2	..	..	..	..	..	1,116
Bauxite ..	..	1,664	4,054	1,191	..	..	..	..	6,909
Beryllium Ore ..	..	10	..	11	56	170	..	..	247
Chromite ..	..	39	..	737	..	..	..	..	776
Copper Ore ..	..	21	..	50,307	52	7,719	..	10	58,109
Copper Concentrate ..	..	5,204	..	197,377	..	1,727	45,057	30,611	279,976
Copper Precipitate ..	..	99	..	..	..	..	153	1,284	1,536
Gold Concentrate ..	..	110	1,739	..	..	..	..	6	1,855
Gold—Other Forms(b) ..	oz.	5,436	47,916	(c)	(c)	(c)	(c)	(c)	(c)
Ilmenite Concentrate ..	ton	131	..	..	..	69,817	..	..	69,948
Iron Ore(d) ..	'000 tons	..	..	..	3,353	573	..	..	3,926
Lead-Silver Ore ..	..	4,231	..	17,371	..	121	..	..	21,795
Lead Concentrate ..	ton	327,098	..	148,811	72	2,313	14,686	..	492,908
Lead-Copper Concentrate ..	..	..	..	..	..	7,630	..	..	7,630
Manganese Ore ..	..	1,858	..	7,068	..	47,584	..	3,173	59,683
Pyrite Concentrate ..	..	36,730	..	7,890	66,935	49,389	65,800	..	226,744
Rutile Concentrate ..	..	46,491	..	36,540	..	297	..	..	83,328
Tantalite-Columbite Concentrate ..	..	..	..	..	..	13,507	..	..	13,507
Tin Concentrate ..	ton	334	..	1,424	..	138	1,229	3	3,128
Tungsten Concentrates—									
Scheelite Concentrate ..	..	2	..	..	..	..	731	..	733
Wolfram Concentrates ..	..	..	..	8	..	..	495	14	517
Zinc Concentrate ..	..	408,169	..	33,239	226	..	62,118	..	503,752
Zircon Concentrate ..	..	32,542	..	26,621	..	106	..	..	59,269

NOTE.—See next page for footnotes.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED, 1958—*continued*.

Mineral.	Unit.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust. (a)
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FUEL MINERALS.

<i>Coal, Black—</i>									
Semi-anthracite ..	'000 tons	55	2	..	57
Bituminous ..	"	15,841	108	2,393	274	..	18,616
Sub-bituminous ..	"	10	..	133	755	871	..	..	1,769
<i>Total ..</i>	"	15,851	108	2,581	755	871	276	..	20,442
<i>Coal, Brown (Lignite) ..</i>	"	..	11,644	..	..	..	..	..	11,644

NON-METALLIC (EXCLUDING FUEL) MINERALS.

Asbestos	short ton	712	..	..	..	14,856	..	..	15,568
Barite	ton	3,991	..	..	2,811	..	..	..	6,802
Clays—									
Brick Clay and Shale ..	'000 tons	1,663	(e)1,031	223	373	(e) 394	145	..	3,829
Other(f)	"	474	170	7	63	34	27	..	775
Diatomite	ton	3,100	1,111	29	..	..	..	..	4,240
Dolomite	"	3,957	..	2,779	148,631	196	2,585	..	158,148
Felspar	"	5,302	..	..	1,033	681	..	..	7,016
Gypsum	"	90,664	72,010	..	306,749	35,515	..	..	504,938
Limestone	"	2,061	859	(g)	1,386	(g)	235	..	5,490
Magnesite	'000 tons	69,030	..	20	341	..	..	..	69,391
Mica-Muscovite, trimmed	lb.	..	..	..	..	..	..	31,391	31,391
Salt, Crude	ton	..	70,572	(g)	336,241	(g)	..	1,500	429,534
Silica (Glass, Chemical, etc.)(f)	"	120,502	..	4,280	7,552	6,510	6,639	..	145,483
Talc	"	998	..	..	11,894	2,501	..	..	15,393

CONSTRUCTION MATERIALS.(h)

Sand	'000 tons	1,790	1,146	(i)	1,176	(i)	(i)	6	4,118
River Gravel and Gravel	"	..	..	..	..	..	..	..	..
Boulders	"	1,580	112	(i)	558	(i)	(i)	15	2,265
Dimension Stone	"	147	5	6	38	76	(i)	(i)	272
Crushed and Broken Stone	"	2,107	5,546	2,175	4,573	599	435	108	15,543
Other (Decomposed Rock, etc.)	"	12,173	549	(i)	(i)	(i)	(i)	(i)	12,722

(a) Excludes Australian Capital Territory where production is confined to brick clay mining and construction material quarrying. (b) Bullion, alluvial, retorted gold, etc. (c) Gross weight not available. (d) Ore for metal extraction and fluxing only. (e) Estimated. (f) Incomplete; figures relate only to production reported by Mines Departments. (g) Not available for publication. (h) Incomplete owing to difficulties of coverage. (i) Not available.

NOTE.—Particulars of uranium concentrate produced are not available for publication and have been excluded from the above table.

2. Quantities of Principal Minerals Produced, Australia.—The following table shows the quantities of the principal minerals produced in Australia during the years 1954 to 1958.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED, AUSTRALIA.(a)

Mineral.	Unit.	1954.	1955.	1956.	1957.	1958.
METALLIC MINERALS.						
Antimony Ore and Concentrate	ton	222	650	547	852	1,116
Bauxite	"	5,487	7,563	10,329	7,707	6,909
Beryllium Ore	"	149	206	318	395	247
Chromite	"	4,943	..	6,096	3,049	776
Copper Ore	"	24,813	47,381	47,209	56,447	58,109
Copper Concentrate	"	184,122	192,770	205,304	222,168	279,976
Copper Precipitate	"	165	182	134	557	1,536
Gold Ore and Concentrate	"	102	171	107	959	1,855
Gold—Other Forms(b)	oz.	(c)	(c)	(c)	(c)	(c)
Ilmenite Concentrate	ton	469	535	4,274	71,155	69,948
Iron Ore(d)	'000 tons	3,519	3,573	3,924	3,805	3,926
Lead-Silver Ore	ton	1,905	23,483	20,121	20,758	21,795
Lead Concentrate	"	452,447	484,941	475,731	497,404	492,908
Lead-Copper Concentrate	"	6,833	5,878	6,315	7,366	7,630
Manganese Ore	"	28,202	47,356	59,384	77,010	59,683
Pyrite Concentrate	"	192,530	217,621	171,859	229,125	226,744
Rutile Concentrate	"	44,659	59,613	96,816	128,903	83,328
Tantalite-Columbite Concentrate	lb.	117,767	27,139	159,655	50,038	13,507
Tin Concentrate	ton	2,974	2,890	2,926	2,867	3,128
Tungsten Concentrates—						
Scheelite Concentrate	"	1,331	1,449	1,495	1,449	733
Wolfram Concentrates	"	722	788	877	656	517
Zinc Concentrate	"	483,744	492,549	530,777	556,763	503,752
Zircon Concentrate	"	41,453	48,673	72,458	88,561	59,269

FUEL MINERALS.

<i>Coal, Black—</i>						
Semi-anthracite	'000 tons	74	82	81	71	57
Bituminous	"	17,848	17,610	17,681	18,229	18,616
Sub-bituminous	"	1,841	1,583	1,512	1,619	1,769
<i>Total</i>	"	19,763	19,275	19,274	19,919	20,442
Coal, Brown (Lignite)	"	9,331	10,112	10,560	10,741	11,644

NON-METALLIC (EXCLUDING FUEL) MINERALS.

Asbestos	short ton	5,278	5,994	9,709	14,670	15,568
Barite	ton	6,872	6,264	6,009	9,778	6,802
<i>Clays—</i>						
Brick Clay and Shale	'000 tons	3,519	3,556	3,426	3,531	3,829
Other(e)	"	716	778	717	748	775
Diatomite	ton	5,439	5,042	5,789	6,221	4,240
Dolomite	"	127,994	111,417	115,564	192,103	158,148
Felspar	"	16,384	20,833	18,629	8,819	7,016
Gypsum	"	439,716	470,014	463,355	478,436	504,938
Limestone	'000 tons	3,459	3,998	4,264	4,572	5,490
Magnesite	ton	43,152	57,674	64,685	83,473	69,391
Mica-Muscovite, trimmed	lb.	84,619	56,649	28,837	36,713	31,391
Salt, Crude	ton	379,143	369,323	408,689	427,600	429,534
Silica (Glass, Chemical, etc.)(e)	"	133,958	121,268	142,485	149,339	145,483
Talc	"	12,940	12,691	13,160	14,441	15,393

NOTE.—See next page for footnotes.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED, AUSTRALIA(a)—continued.

Mineral.	Unit.	1954.	1955.	1956.	1957.	1958.
CONSTRUCTION MATERIALS.(f)						
Sand	'000 tons	3,633	3,732	4,314	4,126	4,118
River Gravel and Gravel Boulders ..	"	2,310	1,743	2,116	1,764	2,265
Dimension Stone	"	291	274	231	230	272
Crushed and Broken Stone ..	"	9,633	13,367	14,817	15,601	15,543
Other (Decomposed Rock, etc.) ..	"	10,480	10,758	11,113	12,546	12,722

(a) Excludes Australian Capital Territory where production is confined to brick clay mining and construction material quarrying. (b) Bullion, alluvial, retorted gold, etc. (c) Gross weight not available. (d) Ore for metal extraction and fluxing only. (e) Incomplete; figures relate only to production reported by Mines Departments. (f) Incomplete owing to difficulties of coverage.

NOTE.—Particulars of uranium concentrate produced are not available for publication and have been excluded from the above table.

3. Contents of Metallic Minerals Produced in 1958.—The following table shows the contents of metallic minerals produced in 1958 which were "pay metals" or which were recovered as "refiners' prizes". Further particulars for earlier years are shown in the following paragraph and in the sections later in this chapter covering principal contents.

CONTENTS OF METALLIC MINERALS PRODUCED, 1958.

Content of Metallic Minerals Produced.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Alumina (Al ₂ O ₃) ..	ton	633	2,304	(a) 596	..	..	..	..	3,533
Antimony	"	1,355	1	..	..	..	..	..	1,356
Beryllium Oxide (BeO) ..	unit (b)	120	..	(a) 120	(a) 654	2,006	..	..	2,900
Bismuth	lb.	..	..	..	..	2,328	..	..	2,328
Cadmium	ton	812	..	..	..	..	60	..	872
Chromic Oxide (Cr ₂ O ₃) ..	"	17	..	(a) 369	..	..	..	..	(c) 386
Cobalt	"	70	..	..	..	..	1	..	71
Copper	"	4,023	..	50,511	1	1,107	11,413	8,660	75,715
Gold	fine oz.	18,709	41,476	74,568	48	874,819	21,744	72,616	1,103,980
Iron(d)	'000 tons	..	..	..	(a)2,179	365	..	..	(c) 2,544
Lead	ton	246,896	..	65,799	13	1,854	13,785	..	328,347
Manganese(e) ..	"	516	..	(a)3,181	..	21,926	..	..	25,623
Manganese Dioxide (MnO ₂)f	"	511	..	..	..	195	..	2,113	2,819
Molybdenum Disulphide (MoS ₂) ..	lb.	..	..	(a)8,568	..	..	..	..	(a)8,568
Monazite	ton	210	..	109	..	(a) 104	..	..	423
Osmiridium	oz.	1	..	..	..	..	42	..	43
Platinum	"	22	..	..	..	..	..	..	22
Silver	'000	..	..	..	..	..	..	..	..
Sulphur(g)	fine oz.	8,992	3	5,675	1	189	1,395	50	16,305
Tantalite-Columbite (Ta ₂ O ₅ + Nb ₂ O ₅) ..	ton	197,736	..	c 14,647	a 32,129	22,635	54,404	..	321,551
Tin	lb.	..	..	..	..	6,736	..	..	6,736
Titanium Oxide (TiO ₂) ..	ton	239	..	1,019	..	94	883	2	2,237
Tungstic Oxide (WO ₃) ..	"	44,974	..	35,755	..	38,504	..	..	119,233
Zinc	"	1	..	5	..	..	837	7	850
Zircon	"	211,667	..	17,484	113	20	33,760	..	263,044
	"	32,230	..	26,412	..	103	..	..	58,745

(a) Estimated. (b) Unit of 22.4 lb. (c) Partly estimated. (d) Excludes iron content of iron oxide not intended for metal extraction or fluxing. (e) Content of metallurgical grade ore. (f) Content of manganese ore other than of metallurgical grade ore. (g) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE.—Particulars of production of uranium oxide (U₃O₈) are not available for publication and have been excluded from the above table.

4. Contents of Metallic Minerals Produced in Australia, 1954 to 1958.—Particulars of the contents of metallic minerals produced in Australia in the years 1954 to 1958 are shown in the following table. Graphs showing details of the mine production of principal metals and coal from 1930 to 1959 may be found on pages 1055 and 1056.

CONTENTS OF METALLIC MINERALS PRODUCED, AUSTRALIA.

Content of Metallic Minerals Produced.	Unit.	1954.	1955.	1956.	1957.	1958.
Alumina (Al_2O_3) ..	ton	(a) 2,440	3,406	4,618	3,758	3,533
Antimony ..	"	731	922	903	1,209	1,356
Beryllium Oxide (BeO) ..	unit(b)	1,723	2,428	3,768	4,570	2,900
Bismuth ..	lb.	1,393	2,800	5,120	1,344	2,328
Cadmium ..	ton	914	844	922	979	872
Chromic Oxide (Cr_2O_3) ..	"	2,094	..	2,624	(a) 1,420	(c) 386
Cobalt ..	"	69	61	59	68	71
Copper ..	"	41,891	47,312	54,547	59,255	75,715
Gold ..	fine oz.	1,117,742	1,049,039	1,029,821	1,083,941	1,103,980
Iron(d) ..	'000 tons	2,274	2,304	2,543	2,466	2,544
Lead ..	ton	284,862	295,944	299,485	333,753	328,347
Manganese(e) ..	"	12,718	20,462	25,856	34,904	25,623
Manganese Dioxide (MnO_2)(f) ..	"	644	1,378	1,464	1,239	2,819
Molybdenum Di- sulphide(MoS_2)(c)	lb.	1,620	5,381	190	5,236	8,568
Monazite ..	ton	71	149	93	132	423
Osmiridium ..	oz.	18	21	27	69	43
Platinum ..	"	23	7	18	17	22
Silver ..	'000	..	..	..	..	..
Sulphur(g) ..	fine oz.	13,831	14,572	14,610	15,789	16,305
Tantalite-Columbite ($\text{Ta}_2\text{O}_5 + \text{Nb}_2\text{O}_5$)	ton	249,664	263,560	305,188	341,443	321,551
Tin ..	lb.	60,348	15,454	85,690	23,499	6,736
Titanium Dioxide (TiO_2) ..	ton	2,075	2,017	2,078	1,952	2,237
Tungstic Oxide (WO_3) ..	"	43,241	57,505	95,502	163,751	119,233
Zinc ..	"	1,372	1,482	1,582	1,409	850
Zircon ..	"	252,659	256,564	278,082	291,582	263,044
	"	40,920	48,210	71,769	87,703	58,745

(a) Partly estimated. (b) Unit of 22.4 lb. (c) Estimated. (d) Excludes iron content of iron oxide not intended for metal extraction or fluxing. Partly estimated. (e) Content of metallurgical grade ore. (f) Content of manganese ore other than of metallurgical grade. (g) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE.—Particulars of production of uranium oxide (U_3O_8) are not available for publication and have been excluded from the above table.

5. Local Value of Minerals Produced 1954 to 1958.—Particulars of the estimated values of minerals (mine and quarry products) produced during the years 1954 to 1958 are shown in the following table. The values represent the estimated selling value at the mine or quarry of minerals produced during the years concerned.

LOCAL VALUE OF MINERALS PRODUCED, AUSTRALIA.
(£'000.)

Mineral.	1954.	1955.	1956.	1957.	1958.
METALLIC MINERALS.					
Copper Ore, Concentrate, etc. ..	9,912	15,018	18,182	12,345	14,770
Gold Ore, Concentrate, Other forms, etc. ..	15,810	15,536	15,509	16,090	16,251
Iron Ore	3,923	4,004	4,449	4,295	4,393
Lead and Lead-Silver Ore and Concentrate, Lead-Copper Concentrate, etc.(a) ..	27,560	32,308	34,552	28,810	22,493
Manganese Ore	366	192	337	589	460
Pyritic Ore and Concentrate	897	1,091	1,023	1,166	1,112
Rutile Concentrate	1,597	2,995	6,430	8,577	4,524
Tin Concentrate	1,606	1,554	1,599	1,612	1,739
Tungsten Concentrates	2,347	3,375	3,332	2,167	871
Zinc Ore and Concentrate	6,531	7,879	8,215	3,655	2,565
Zircon Concentrate	324	392	604	854	487
Other Metallic Minerals	253	179	415	602	525
<i>Total Metallic Minerals (b)</i> ..	<i>71,126</i>	<i>84,523</i>	<i>94,647</i>	<i>80,762</i>	<i>70,190</i>
FUEL MINERALS.					
Coal, Black	54,884	53,737	52,439	52,279	51,658
Coal, Brown	3,945	4,382	4,644	5,228	5,418
<i>Total Fuel Minerals</i>	<i>58,829</i>	<i>58,119</i>	<i>57,083</i>	<i>57,507</i>	<i>57,076</i>
NON-METALLIC (EXCLUDING FUEL) MINERALS.(b)					
<i>Total Non-metallic (excluding Fuel) Minerals</i>	<i>7,102</i>	<i>7,405</i>	<i>8,146</i>	<i>9,002</i>	<i>10,192</i>
CONSTRUCTION MATERIALS.(c)					
<i>Total Construction Materials</i>	<i>12,346</i>	<i>14,824</i>	<i>16,444</i>	<i>17,840</i>	<i>18,497</i>
TOTAL.					
Total, All Minerals and Construction Materials (c)	149,403	164,871	176,320	165,111	155,955

(a) Prior to 1958, the value of lead-copper concentrate was included with "Copper Ore, Concentrate, etc." (b) Excludes Australian Capital Territory, details of which are included with construction materials. (c) Incomplete owing to difficulties of coverage.

NOTE.—Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the above table.

6. Local and Net Value of Mining and Quarrying Production by Industry, 1958.—Particulars of the local value (or value of output) and net value (or value of production) of production of the principal Mining and Quarrying industries for the year 1958 are shown in para. 4 (vi.), page 1045. Owing to the necessity of classifying individual mines according to the principal mineral produced, the values in the tables on pp. 1045-6 and for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table in para. 5 above.

§ 4. Gold.

1. Historical.—The earliest definite record of the discovery of gold in Australia was made on 15th February, 1823, by James McBrien, a surveyor, whilst surveying the Fish River between Rydal and Bathurst, New South Wales, and there are records of gold having been identified in several places during the next 27 years. It is believed that the first authentic

discovery of gold from which actual mining operations resulted was made in January, 1846, about 10 miles east of Adelaide, South Australia. However, credit for the first discovery of payable gold is generally given to E. H. Hargraves, who notified the Government of New South Wales on 3rd April, 1851, of his find, located at the junction of the Summerhill and Lewis Pond Creeks in the Bathurst (N.S.W.) district. This caused a gold rush, and prospecting started in many localities.

The Colony of Victoria was separated from New South Wales on 1st July, 1851, and within a few days of its inception, the new government was notified of the discovery of gold in several places. It would appear that the Hon. W. Campbell discovered gold near Clunes (Victoria) in March, 1850, but temporarily concealed the fact, and his discovery was not disclosed until 8th July, 1851. The discovery of gold at Ballarat and Bendigo followed soon afterwards.

The early discoveries were of alluvial gold, and only crude equipment was required to work them. As a consequence, cities and towns were depleted of their population as large numbers rushed to the diggings. The Australian population growth from 438,000 at the end of 1851 to 1,168,000 at the end of 1861 can be said to be largely due to the discoveries of gold.

Discoveries continued to be made, including such important fields as Canoona (Queensland) in 1858, Forbes (New South Wales) in 1862, Gympie (Queensland) in 1868, and Charters Towers and Mount Morgan (both in Queensland) in 1882. With the discovery at Mt. Lyell (Tasmania) in 1886, the major discoveries in the Eastern States ceased.

Western Australia did not enter the field for a considerable time after gold mining had become well established in most of the other States. Although some specimens had been found between 1850 and 1870, it was not until 1886 that the Kimberley field was discovered, followed by Yilgarn in 1887. In 1892, Bayley and Ford discovered Coolgardie, and in May of the following year Hannan and Flannigan found Kalgoorlie. In the years since, there have been no further discoveries of major goldfields although many profitable deposits in other localities have been found and worked.

The amount of gold won in Australia in any one year attained its maximum in 1903, the year in which Western Australian production reached its highest level. For the other States, the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1904; and Tasmania, 1899. In recent years, output from the Northern Territory has expanded considerably and the highest annual production was recorded as recently as 1956.

Owing to the exhaustion of the more easily worked deposits and increased costs due to deep mining, the production of gold in Australia declined from 3,837,979 fine oz. in 1903 to 427,160 fine oz. in 1929, the lowest output since its discovery. Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development between that year and 1939 was caused by the heavy depreciation of Australian currency in terms of gold. Following the outbreak of the 1939–45 War, there was a sharp fall in gold production to 656,867 fine oz. in 1944 and 657,213 fine oz. in 1945, but with the release of man-power after the war, there has been a slight upward trend in mine production of gold, which in 1953 exceeded 1,000,000 fine oz. for the first time since 1942. The devaluation of Australian currency in September, 1949, gave an impetus to gold production, but this was offset in the following years by increasing costs which brought about the closing of several large producers in New South Wales, Victoria and Western Australia.

2. Present Methods of Mining and Treatment.—Gold ores can be divided into two types, namely, free-milling and refractory. Free-milling ores are those that, when finely ground, will yield their gold content to amalgamation and/or cyanidation and these are found in most of the gold deposits of Australia.

Some refractory ores, which are not amenable to amalgamation, allow their gold to be dissolved by cyanidation, from which solution the gold is then precipitated. However, on the Coolgardie field, where gold bearing sulphide and telluride minerals occur, it is necessary first to recover these from gangue by flotation. This concentrate is then roasted and the resulting calcine, an impure oxide containing free gold, is cyanided to yield gold. This is usually smelted as bullion, in which form it leaves the vicinity of the mine.

3. **Mine Production.**—The table hereunder shows the mine production of gold (gold content of minerals produced) during 1958 according to the mineral in which it was contained and the State or Territory of origin. It should be noted that the minerals shown below contain, in addition to gold, certain other metals.

GOLD : MINE PRODUCTION, 1958.

(Fine oz.)

Mineral in which contained.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Copper Ore, Concentrate, etc. ..	3,197	..	57,675	..	834	6,015	10,132	77,853
Gold Ore, Concentrate, etc. ..	4,997	41,476	16,893	48	873,985	151	62,484	1,000,034
Lead-Silver Ore ..	15	..	..	..	..	..	..	15
Lead Concentrate ..	8,571	..	..	..	..	3,019	..	11,590
Lead-Copper Concentrate ..	..	..	..	..	..	10,001	..	10,001
Zinc Concentrate ..	1,929	..	..	..	..	2,558	..	4,487
Total Gold ..	18,709	41,476	74,568	48	874,819	21,744	72,616	1,103,980

(a) Includes a small quantity of gold recovered from pyrite concentrate which was dispatched from Kalgoorlie for sulphuric acid manufacture.

The principal sources of production during 1958 were as follows:—

(i) *New South Wales.* There are now no mines employing four or more hands engaged solely in gold mining in New South Wales. Most of the gold produced during 1958 was contained in lead and zinc concentrates produced at Broken Hill and lead, zinc and copper concentrates milled at Captain's Flat.

(ii) *Victoria.* At Chewton, near Castlemaine, the Wattle Gully mine produced more than half of the State's production. Most of the remaining production was won from small gold mines in the north-east portion of the State.

(iii) *Queensland.* The copper concentrate produced at Mt. Morgan contained more than two-thirds of the State's output of gold. Nearly all of the remaining production was from the Golden Plateau N.L. mine at Cracow.

(iv) *South Australia.* The only gold produced was won by prospectors.

(v) *Western Australia.* More than half of the total production came from the Coolgardie goldfields, while most of the remaining production came from the Dundas, Murchison and Yilgarn goldfields. The Lake View and Star mine at Fimiston maintained its position as the largest gold producer in Australia, mining 170,888 fine oz. during 1958, and three other mines each produced over 100,000 fine oz. in the same period.

(vi) *Tasmania.* Copper concentrate produced at Mt. Lyell contained most of the gold produced in Tasmania during 1958, while most of the remaining production was included in lead and zinc concentrates milled at Rosebery. A small quantity of gold was recovered from alluvial tin-mining operations.

(vii) *Northern Territory.* Gold production in the Northern Territory is centred around Tennant Creek. At this centre, the main producer was the Nobles Nob mine, and the next largest producer was the Peko mine where gold was produced in copper concentrate.

The following table shows the recorded mine production of gold (i.e., gold content of minerals produced) in the several States and in Australia as a whole during each of the ten decennial periods from 1851 to 1950, and in single years from 1951 to 1958. Owing to defective information in the earlier years, it is likely that the recorded production falls considerably short of the actual totals.

GOLD : MINE PRODUCTION.(a)

('000 fine oz.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
1851-60	2,714	21,973	3	..	..	1	..	24,691
1861-70	3,220	15,327	489	..	..	3	..	19,039
1871-80	2,019	9,564	2,527	136	..	165	19	14,430
1881-90	1,014	6,689	3,259	58	42	357	168	11,587
1891-1900	2,432	7,040	5,648	52	5,252	550	214	21,188
1901-10	2,253	7,095	5,512	73	17,784	604	111	33,432
1911-20	1,145	3,067	2,263	55	10,671	202	23	17,426
1921-30	204	593	434	10	4,557	43	2	5,843
1931-40	569	1,052	1,021	53	8,474	130	84	11,383
1941-50	572	800	750	13	6,683	157	148	9,123
1951	49	66	79	(b)	648	15	39	896
1952	39	68	85	(b)	727	16	45	980
1953	26	64	92	(b)	823	17	53	1,075
1954	32	53	98	(b)	862	19	54	1,118
1955	30	38	64	(b)	835	17	65	1,049
1956	29	39	56	(b)	814	17	75	1,030
1957	31	46	63	(b)	850	20	74	1,084
1958	19	41	75	(b)	875	22	72	1,104
Total, 1851-1958 ..	16,397	73,615	22,518	450	59,897	2,355	1,246	176,478

(a) Gold content of minerals produced.

(b) Less than 500 fine oz.

4. **Refinery Production.**—Amalgam and gold slimes from cyanide extraction are treated at the mines to produce gold bullion, which at some mines may be partly refined before dispatch to the Royal Mints, located in Melbourne and Perth. By-product gold from lead smelting is refined at Port Pirie in South Australia while the gold contained in copper refinery sludges, resulting from electrolytic copper refining at Mount Lyell and Port Kembla, is recovered at Port Kembla. Gold bullion and other gold-bearing materials are also refined in Sydney.

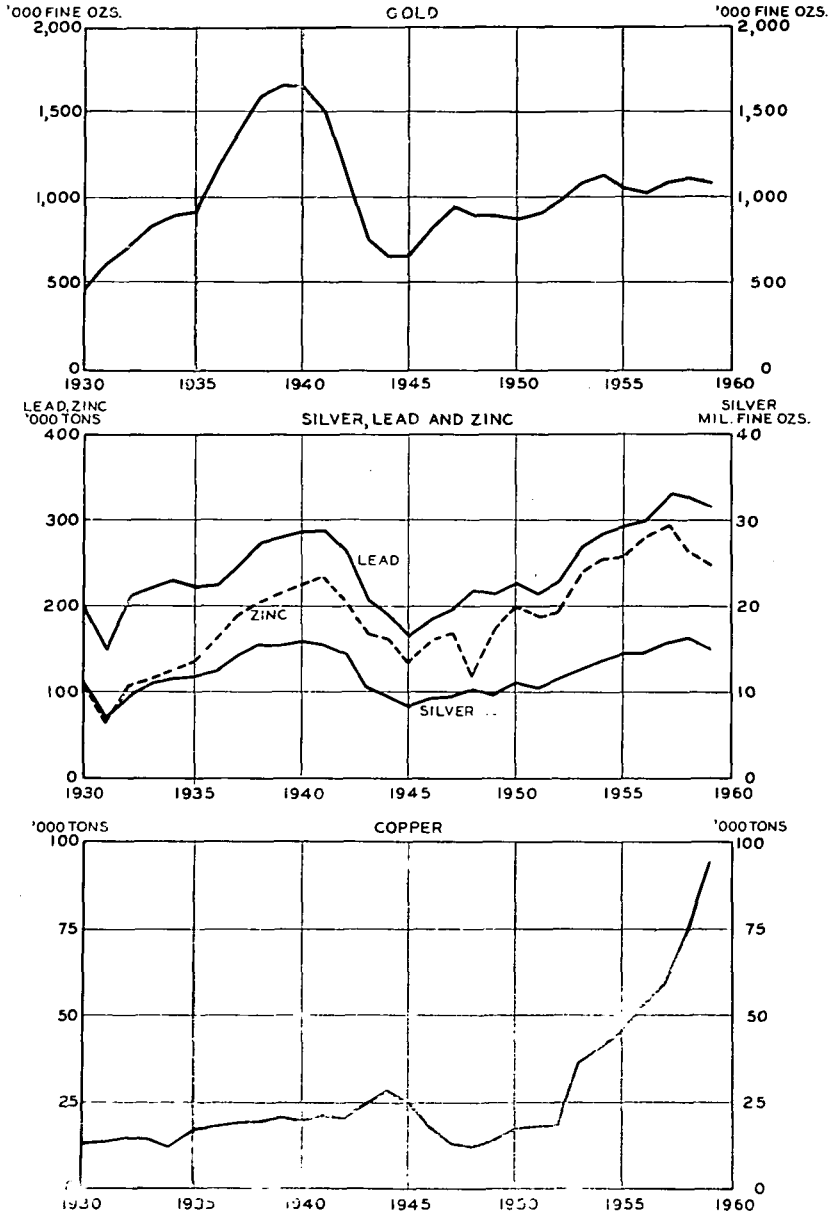
Details of the refinery production of gold in Australia and the value of refined newly-won gold of Australian origin are shown in the following table for each of the years 1954 to 1958. The value of the refined newly-won gold is based on the price fixed by the Commonwealth Bank, but allowance is made for premiums on sales of gold overseas and for industrial purposes in Australia.

PRODUCTION OF REFINED GOLD IN AUSTRALIA.

Particulars.	1954.	1955.	1956.	1957.	1958.
QUANTITY (FINE OUNCES).					
Australian Origin—					
Newly-won Gold.. ..	1,063,457	1,054,714	1,044,164	1,078,419	1,069,774
From Scrap	20,728	20,130	20,106	21,480	17,350
Oversea Origin—					
Newly-won Gold.. ..	189,913	167,547	161,065	171,970	136,998
From Scrap	828	454	708	1,248	888
Total	1,274,926	1,242,845	1,226,043	1,273,117	1,225,010
VALUE (£.).					
Newly-won Gold of Australian Origin	16,589,114	16,503,403	16,345,912	16,872,458	16,720,490

MINE PRODUCTION OF PRINCIPAL METALS (METALLIC CONTENT OF MINERALS)

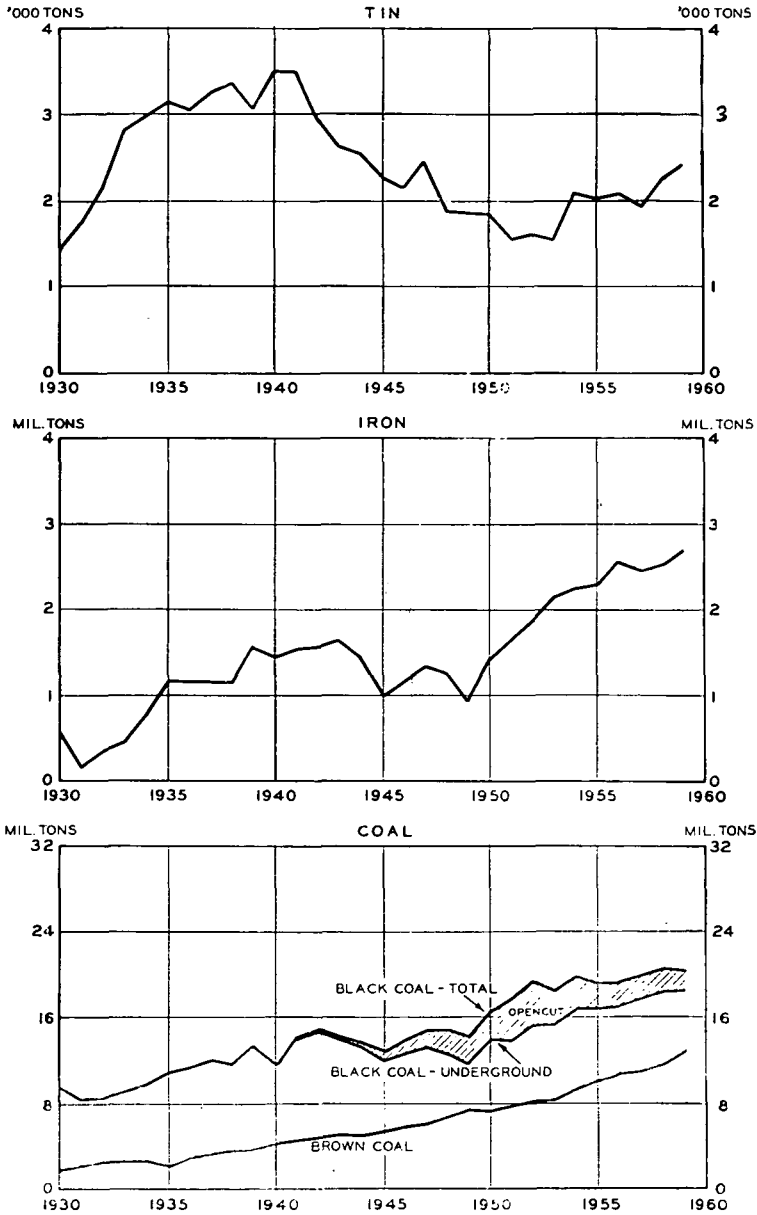
AUSTRALIA, 1930 TO 1959



MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1930 TO 1959



5. Changes in Stocks of Gold held in Australia.—The following table shows particulars of production, imports and exports of gold and changes in stocks of gold held in Australia for each of the years 1954 to 1958.

CHANGES IN STOCKS OF GOLD HELD IN AUSTRALIA.

(Fine oz.)

Particulars.	1954.	1955.	1956.	1957.	1958.
Mine Production of Gold(a) ..	1,117,742	1,049,039	1,029,821	1,083,941	1,103,980
Imports of Gold(b)(c) ..	211,018	150,606	201,883	159,998	160,232
<i>Total</i>	<i>1,328,760</i>	<i>1,199,645</i>	<i>1,231,704</i>	<i>1,243,939</i>	<i>1,264,212</i>
Exports of Gold(b)	568,732	1,136,575	531,010	783,814	128,550
Gold Content of Ores and Concentrates Exported ..	10,231	15,244	18,177	19,561	22,453
Net Industrial Absorption of Gold	52,346	35,953	37,052	42,887	37,568
<i>Total</i>	<i>631,309</i>	<i>1,187,772</i>	<i>586,239</i>	<i>846,262</i>	<i>188,571</i>
Changes in Stocks of Gold held in Australia(d)	+ 697,451	+ 11,873	+ 645,465	+ 397,677	+ 1,075,641

(a) Gold content of minerals produced in Australia.

(b) Includes gold contained in matte.

(c) Excludes gold imported in some minor minerals.

(d) Includes gold content of mineral products awaiting refining; excludes gold specie.

6. Production in Principal Countries.—The quantities of gold produced in the principal producing countries and the estimated world total production in each of the years 1954 to 1958, according to data published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, are shown in the table hereunder.

GOLD: PRODUCTION IN PRINCIPAL COUNTRIES.

('000 fine oz.)

Country.	1954.	1955.	1956.	1957.	1958.
Union of South Africa ..	13,237	14,601	15,897	17,031	17,656
Canada	4,366	4,542	4,384	4,434	4,535
United States of America ..	1,837	1,880	1,832	1,794	1,739
Australia	1,118	1,049	1,030	1,084	1,104
Ghana	787	687	638	790	853
Rhodesia and Nyasaland ..	538	527	540	540	559
Philippines	416	419	406	380	423
Colombia	377	381	438	325	372
Belgian Congo	365	370	374	374	356
Mexico	387	383	350	346	332
<i>Estimated World Total(a)</i> ..	<i>25,700</i>	<i>26,900</i>	<i>28,000</i>	<i>29,000</i>	<i>30,000</i>

(a) Excludes U.S.S.R. The United States Bureau of Mines has estimated U.S.S.R. production at 9–10 million ounces per annum in recent years.

7. **Prices of Gold.**—Under existing legislation, all gold produced in Australia is sold to the Commonwealth Bank. The official price of gold is fixed by the Commonwealth Bank, and on 1st May, 1954, it was raised from £15 9s. 10d. to £15 12s. 6d. per fine oz. The current price reflects the "parity" value of Australian currency established by the International Monetary Agreement Act 1947. Previously, the price of gold was based on the price for which gold could be sold abroad in official markets, less costs of movement.

Average prices of gold per fine oz. in Australia and in London, for the years 1954 to 1958, are shown in the following table. The London gold market was re-opened on 22nd March, 1954, and the prices quoted on this market have been used from that date. Previously the Bank of England official price was used.

PRICES OF GOLD: AUSTRALIA AND LONDON.

(per fine oz.)

Place of Sale.	1954.	1955.	1956.	1957.	1958.
At Mints in Australia £A. s. d.	15 11 7	15 12 6	15 12 6	15 12 6	15 12 6
London £stg. s. d.	12 9 4	12 10 11	12 10 2	12 10 3	12 9 9

8. **Sales of Gold on Oversea Premium markets.**—In November, 1951, the Commonwealth Government decided to allow Australian gold producers to benefit from the high prices being paid for gold on some overseas markets. To implement this decision, the Gold Producers' Association was incorporated in Victoria, but with its headquarters in Kalgoorlie, Western Australia, in December, 1951, and the first sales were made in that month. Under existing legislation, all gold produced in Australia must be sold to the Commonwealth Bank but the newly-formed Association was permitted to purchase from the Bank each month for resale on premium markets a maximum quantity of gold equal to the amount of new gold delivered to the Bank by members in the previous month, less the quantity required for industrial purposes in Australia. The net proceeds from premium sales are distributed to members in proportion to their production of gold. The actual volume of sales has been dependent largely on prices offering and, up to the end of 1953, premium sales of gold brought an additional return to the industry amounting to over £1,800,000. Towards the end of 1953, however, the price of gold on overseas premium markets fell sharply and subsequent sales have been made at prices very little above the official price.

The following table shows the quantity and value of gold sold on overseas premium markets and the average price realized for these sales during the years 1954 to 1958.

GOLD SOLD ON OVERSEA PREMIUM MARKETS.

Particulars.	Unit.	1954.	1955.	1956.	1957.	1958.
Quantity ..	fine oz. . .	602,767	981,980	505,262	687,115	189,537
Value ..	£A. f.o.b.	9,390,028	15,370,834	7,919,646	10,760,214	2,964,638
Average Price ..	£A. s. d.	15 11 7	15 13 1	15 13 6	15 13 2	15 12 10

9. **Assistance to the Gold-Mining Industry.**—After the collapse of high premium prices late in 1953, conditions in the gold-mining industry again became acute and many producers were faced with the prospect of closing down. To meet this situation, the Gold-Mining Industry Assistance Act was assented to on 18th November, 1954. The purpose of this Act was to assist the gold-mining industry by the payment of subsidy subject to certain conditions on the production and sales of gold. The subsidies paid under the original Act were increased under amendments enacted on 22nd October, 1957, and 22nd May, 1959. Under the Act as it now stands, the subsidy payable to small producers whose annual output does not exceed 500 fine oz. is £2 8s. 0d. per fine oz., irrespective of cost of production. For large producers, subsidy is paid at the rate of three quarters of the excess of the average cost of production over £13 10s. 0d. per fine oz. with a maximum amount of subsidy of £3 5s. 0d. per

fine oz. Where a producer receives an amount in excess of the official price of £15 12s. 6d. per fine oz. as a result of sales on oversea premium markets or otherwise, the subsidy payable shall be reduced by the amount of the excess. The subsidy is also limited to the extent that the annual net profit of a producer will not, with the addition of the subsidy, exceed 10 per cent. of the capital investment in the company. The maximum expenditure on development allowable in determining costs is £5 5s. 0d. per fine oz. A further condition of the Act is that the recovery rate of the mine shall be maintained at the level of the year previous to the Act. Payments under the Act are to continue until 30th June, 1962.

Payments under the Act commenced in March, 1955, and the amounts paid to gold producers in the various States and Territories of Australia in each of the years 1955 to 1959 are shown in the following table.

NET SUBSIDY PAYMENTS TO GOLD PRODUCERS.
(£.)

Year.	New South Wales.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Papua and New Guinea.	Total.
1955	225	29,657	966	..	199,051	..	441	6,606	236,946
1956	17	31,478	2,848	..	496,819	..	1,020	63,979	596,161
1957	34	56,044	620	..	512,708	..	8,345	10,761	588,512
1958	26,951	38,380	3,958	..	623,394	..	16,360	44,485	753,528
1959	107	41,500	2,937	55	652,266	..	39,181	52,449	788,495

10. **Employment in Gold Mining.**—Particulars of the numbers of persons employed in gold mining are shown in paras. 4 (ii), page 1043 and 4 (iii), page 1044.

§ 5. Lead, Silver and Zinc.

1. **Historical.**—Prior to the discovery of the great Broken Hill lead-silver-zinc lode in 1883 by Charles Rasp, a boundary rider, the mining of lead-silver-zinc ores at other localities in New South Wales had been intermittent and only small quantities were produced. The Broken Hill lode has proved to be one of the biggest in the world and to date over 80 million tons of ore have been raised. The Broken Hill Proprietary Co. Ltd., now engaged in steel manufacture, was the company first formed to operate at Broken Hill and continued operations there until 1939 when the ore in its leases became exhausted. The first ores mined at Broken Hill were oxidized and required only simple smelting to produce a lead-silver bullion. No initial attempt was made to recover zinc and it was not until 1897 that the first commercial zinc concentrate was produced. The exhaustion of the oxidized ore early this century led to the mining of the deeper sulphide ores. The need to produce separate lead and zinc concentrates for smelting purposes, with economic metal recoveries, resulted in the perfection at Broken Hill of the differential ore flotation process. The preparation of sulphide concentrates by flotation methods is now used throughout the world. Mining operations at Broken Hill are now mainly carried on to the north and south of the original leases. In 1939, Lake George Mines Ltd. at Captain's Flat, near Queanbeyan, commenced large-scale mining of a lead-zinc-copper ore body which had been first worked in 1882.

Lead-silver-zinc ores have been mined in Queensland since 1870 but it was not until 1923 that the largest ore-body, at Mt. Isa, was discovered by John Miles. Mt. Isa Mines Ltd. commenced mining operations at this centre in 1931. Mt. Isa is now the second largest centre in Australia producing lead-silver-zinc ores and the largest producer of copper. During the 1939-45 War, mining of lead-silver-zinc ores at Mt. Isa was suspended in favour of copper production.

Lead-silver ores were first discovered in Western Australia in the Northampton District in 1848 and most of the subsequent production in that State has been from that District.

The first recorded production of lead in Tasmania was in 1888, and of zinc, in 1919. Production has been restricted to the West Coast.

2. **Present Methods of Mining and Treatment.**—Nearly all ores now mined are composed of deep-lying sulphide minerals and it is therefore necessary to mine these ores by underground methods. At all large mines, it is the practice to produce separate lead and zinc concentrates,

with the lead concentrate containing most of the silver. These concentrates are prepared by differential flotation except in cases where a satisfactory concentrate can be obtained by gravity methods. In flotation plants, the ore is finely ground and by differential flotation a lead concentrate is first produced, with the zinc concentrate subsequently separated from the tailings. At Captain's Flat, differential flotation methods are used to produce successive concentrates of copper, lead, zinc and pyrite.

Particulars of representative Broken Hill lead and zinc concentrates are shown in para. 4, page 1039.

3. **Mine Production.**—The following table shows for 1958 the mine production (metal content of ores and concentrates produced) of silver, lead and zinc in Australia, and the respective minerals in which these metals were contained.

LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES PRODUCED, 1958.

Mineral in which contained.	N.S.W.	Vic.	Q'land.	S.A.	W.Aust.	Tas.	N.T.	Aust.
LEAD (tons).								
Lead-Silver Ore ..	729	..	1,449	13	92	..	..	2,283
Lead-Silver-Zinc Ore ..	..	..	..	..	18	..	..	18
Lead Concentrate ..	241,521	..	63,715	..	1,744	9,068	..	316,048
Lead-Copper Con- centrate ..	..	..	..	..	..	2,843	..	2,843
Zinc Concentrate ..	4,646	..	635	..	..	1,874	..	7,155
Total Lead ..	246,896	..	65,799	13	1,854	13,785	..	328,347
SILVER (fine oz.).								
Copper Ore, Concen- trate, etc. ..	64,736	..	260,327	..	3,475	34,392	49,449	412,379
Gold Concentrate, etc. ..	592	3,018	9,363	..	184,082	..	215	197,270
Lead-Silver Ore ..	58,653	..	34,600	613	891	..	..	94,757
Lead Concentrate ..	8,509,147	..	5,262,594	..	927	427,462	..	14,200,130
Lead-Copper Con- centrate ..	..	..	..	..	..	761,360	..	761,360
Zinc Concentrate ..	359,165	..	107,905	..	..	171,604	..	638,674
Total Silver ..	8,992,293	3,018	5,674,789	613	189,375	1,394,818	49,664	16,304,570
ZINC (tons).								
Silver-Lead-Zinc Ore Zinc Concentrate ..	211,667	..	17,484	113	20	33,760	..	20 263,024
Total Zinc ..	211,667	..	17,484	113	20	33,760	..	263,044

The principal sources of production of lead, silver and zinc during 1958 were as follows:—

(i) *New South Wales.* Lead and zinc concentrates, produced only at Broken Hill and Captain's Flat, contained nearly all of the New South Wales production of lead and silver and all of the zinc. The five present Broken Hill mines listed in decreasing order of tonnage mined, are:—Zinc Corporation Ltd., New Broken Hill Consolidated Ltd., North Broken Hill Ltd., Broken Hill South Ltd., and Barrier Central Pty. Ltd. The mines operating at Broken Hill, during 1958, produced (in terms of the contents of all ores and concentrates produced) over 70 per cent. of Australia's lead and zinc and more than one half of the silver. Small quantities of lead-silver ore were produced, mainly in the Broken Hill district. In addition, the copper concentrate produced at Captain's Flat contained silver as did small quantities of copper ore produced in other parts of the State and gold bullion produced from gold mining operations.

(ii) *Victoria.* All of the silver produced was obtained from gold mining operations. No zinc bearing minerals are mined in Victoria and lead was last mined in 1957.

(iii) *Queensland.* Mt. Isa Mines Ltd. was the only producer of lead and zinc concentrates in Queensland and these contained most of the State's production of lead and silver and all of the zinc. Small quantities of silver-lead ore were mined mainly at Mt. Isa and

in the surrounding district. Copper concentrates containing silver were produced at Mount Morgan while some silver is also contained in gold bullion derived from gold ores, mainly at Cracow.

(iv) *South Australia.* Very small quantities of lead, silver and zinc ore were mined in South Australia during 1958.

(v) *Western Australia.* Most of the silver produced in Western Australia was obtained from gold bullion produced by the gold-mining industry. Lead-silver ores, mined chiefly in the Northampton mineral field, near Geraldton, contained lead and silver. The zinc production recorded for 1958 refers to dispatches from the Pilbara goldfield.

(vi) *Tasmania.* All of the lead, silver and zinc was produced from mines at Rosebery and Mt. Read on the West Coast. Ores from both mines were concentrated at the Rosebery mine and separate lead, zinc, and lead-copper concentrates were produced. Silver was also contained in copper concentrates milled at Mt. Lyell. A lead concentrate was milled from ore mined at Zeehan during 1958.

(vii) *Northern Territory.* No ores containing lead or zinc were mined during 1958. However, silver was produced in copper concentrates from the Peko mine at Tennant Creek and Rum Jungle and in small quantities of copper ore mined at various localities. Gold bullion produced, mainly at Tennant Creek, also contained silver.

The table hereunder shows the quantities of silver, lead and zinc contained in minerals won in the several States and the Northern Territory during the years 1954 to 1958:—

SILVER, LEAD AND ZINC: CONTENT OF ORES AND CONCENTRATES PRODUCED.

State or Territory.	1954.	1955.	1956.	1957.	1958.
LEAD (tons).					
New South Wales	230,392	234,854	238,319	266,928	246,896
Victoria .. ..	..	..	..	4	..
Queensland	41,424	48,814	43,104	51,269	65,799
South Australia	14	2	17	20	13
Western Australia	1,497	1,007	5,828	3,087	1,854
Tasmania	11,533	11,267	12,217	12,445	13,785
Northern Territory	2	..	..	..	..
Australia	284,862	295,944	299,485	333,753	328,347
SILVER (fine oz.).					
New South Wales	8,680,114	8,823,211	9,289,583	9,969,102	8,992,293
Victoria	3,443	1,633	2,255	3,157	3,018
Queensland	3,583,776	4,363,371	3,724,596	4,283,388	5,674,789
South Australia	625	142	653	975	613
Western Australia	237,639	200,748	192,589	187,530	189,375
Tasmania	1,321,385	1,166,307	1,372,881	1,299,062	1,394,818
Northern Territory	3,542	16,621	27,365	45,417	49,664
Australia	13,830,524	14,572,033	14,609,922	15,788,631	16,304,570
ZINC (tons).					
New South Wales	202,646	211,478	229,126	241,509	211,667
Queensland	19,615	17,138	16,231	19,536	17,484
South Australia .. ..	..	..	7	97	113
Western Australia	74	..	..	..	20
Tasmania	30,324	27,948	32,718	30,440	33,760
Australia	252,659	256,564	278,082	291,582	263,044

4. **Smelter and Refinery Production.**—(i) *Lead Concentrate.* Lead concentrate produced at Broken Hill is railed to Port Pirie, in South Australia, for smelting and refining. Lead-silver bullion is produced from initial smelting, and lead, silver and gold are then refined. Cadmium is obtained from smelter fumes and refined to produce rods of metal. The sulphur dioxide gas formed during pre-smelter sintering operations is used to manufacture sulphuric acid. The antimony contained in the concentrate is alloyed with lead to form marketable antimonial lead while the copper is processed to the matte and speiss stage and sent to copper refineries for copper extraction. Lead concentrates produced at Broken Hill are now in excess of Port Pirie smelter and refinery capacity and part of the Broken Hill production is exported.

Lead ore and concentrate produced at Mount Isa is smelted at the mine to derive a lead bullion which is rich in silver. All of this bullion is exported to the United Kingdom for refining. A lead-copper dross is produced as a by-product of lead smelting and this is also exported.

Lead and lead-copper concentrate produced in Tasmania, and lead concentrate produced at Captain's Flat in New South Wales and in Western Australia, are exported.

(ii) *Zinc concentrate.* About half of the zinc concentrate produced at Broken Hill is exported overseas, and the remainder is shipped from Port Pirie to Risdon, near Hobart, for refining. At Risdon, the Broken Hill concentrate, together with all zinc concentrate produced in Tasmania, is roasted to form zinc oxide, or calcine. Sulphur dioxide formed during this roasting process is used for the manufacture of sulphuric acid. The calcine is leached with a weak solution of sulphuric acid to form a zinc sulphate solution which, after purification, is electrolysed. Zinc of high purity is deposited on the cathodes and this zinc is melted and cast into ingots. Cadmium metal and cobalt oxide are also recovered. Lead-silver residues are recovered and forwarded to Port Pirie for smelting with lead concentrates. Copper residues are sent to Port Kembla for treatment.

Zinc concentrates produced at Mount Isa and Captain's Flat, and small quantities of lead-silver-zinc ore produced at various localities in Western Australia, are exported.

In the following table, details are given of the production and sales of refined primary silver, lead and zinc as recorded from data received from the Bureau of Mineral Resources and the Australian Mines and Metals Association. The figures shown for refined silver production include small quantities recovered from imported materials.

REFINED SILVER, LEAD AND ZINC : PRODUCTION AND SALES, AUSTRALIA.

Particulars.	1954.	1955.	1956.	1957.	1958.
SILVER ('000 fine oz.).					
Production(a)	8,474	7,818	8,232	8,011	9,101
Sold to Australian consumers(b)	1,977	1,928	1,893	4,410	4,184
Sold for export(b)	6,989	5,793	6,214	3,397	5,074
LEAD (tons).					
Refined Lead— Production(a)	200,409	187,134	194,506	192,161	191,474
Sold to Australian consumers(b)	42,088	45,851	38,616	37,291	39,928
Sold for export(b)	153,847	148,189	151,628	152,432	158,075
Lead-Silver Bullion— Produced for export (lead content)(a)	38,146	37,392	41,658	46,891	57,171
ZINC (tons).					
Production(a)	104,523	101,090	104,993	110,348	114,773
Sold to Australian consumers(b)	61,478	71,355	69,760	78,874	72,844
Sold for export(b)	36,130	34,049	32,718	37,316	37,989

(a) Source: Bureau of Mineral Resources.

(b) Source: Australian Mines and Metals Association.

5. **Production in Principal Countries and World Total.**—The following table shows, for the years 1956 to 1958, particulars of silver, lead and zinc production (mine basis) in principal producing countries, together with the estimated world total, according to data published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys.

SILVER, LEAD AND ZINC: MINE PRODUCTION IN PRINCIPAL COUNTRIES.

Country.	1956.	1957.	1958.
LEAD (tons).			
U.S.S.R.	(a) 305,000	(a) 320,000	(a) 335,000
Australia	299,485	333,753	328,347
United States of America	315,023	301,979	238,729
Mexico	196,457	211,482	197,859
Canada	168,620	162,039	165,866
Peru	127,036	134,986	132,043
<i>Estimated World Total</i> ..	2,300,000	2,400,000	2,300,000

SILVER (fine oz.).			
Mexico	43,078,040	47,149,514	47,592,360
United States of America	38,948,121	38,164,915	34,111,027
Canada	28,431,847	28,823,298	31,311,378
Peru	22,972,766	24,845,258	25,918,353
U.S.S.R.	(b) 25,000,000	(b) 25,000,000	(b) 25,000,000
Australia	14,609,922	15,788,631	16,304,570
Japan	6,166,963	6,543,673	6,513,900
Bolivia	7,543,304	5,375,090	6,051,284
Germany, Eastern	(a) 4,500,000	(a) 4,500,000	(a) 4,500,000
Belgian Congo	3,794,000	3,044,900	3,794,000
<i>Estimated World Total</i> ..	226,000,000	230,000,000	235,000,000

ZINC (tons).			
Canada	377,350	369,411	382,712
United States of America	484,232	474,763	367,862
U.S.S.R.	(a) 270,000	(a) 300,000	(a) 325,000
Australia	278,082	291,582	263,044
Mexico	244,956	237,221	220,566
Poland	150,900	156,261	160,047
Japan	121,058	133,858	139,505
Peru	172,354	152,017	133,120
<i>Estimated World Total</i> ..	2,990,000	3,050,000	2,990,000

(a) Estimated smelter production.

(b) Estimated.

6. **Prices of Silver, Lead and Zinc.**—The following table shows average prices in Australia and on the London Metal Exchange during the years 1954 to 1958. Lead and zinc prices were controlled in Australia and the United Kingdom after the outbreak of war in 1939, but were decontrolled in Australia on 21st April, 1953. Free trading in lead in the United Kingdom, after thirteen years of Government control, was resumed on 1st October, 1952, while the fixing by regulation of the price of zinc was abandoned from 1st January,

1953. In Australia, minimum prices for sales of zinc and lead were fixed on 1st January, 1958, and 22nd December, 1958, respectively. Silver prices have not been controlled in Australia or the United Kingdom.

PRICES OF SILVER, LEAD AND ZINC.

Particulars.	1954.	1955.	1956.	1957.	1958.
<i>Australian Prices, in Australian currency—</i>					
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Silver, per fine oz. (a) ..	7 8	8 1	8 3	8 3	8 0
	£	£	£	£	£
Lead, per ton	114	127	140	117	(b) 87
Zinc, per ton	101	114	122	104	(c) 91
<i>London Metal Exchange Prices, in sterling—</i>					
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Silver, per fine oz. ..	6 2	6 4	6 7	6 7	6 5
	£	£	£	£	£
Lead, per ton	96	106	116	97	73
Zinc, per ton	78	91	98	82	65

(a) Silver prices shown represent export parity calculated from London Metal Exchange prices.
 (b) Average market price was used for the periods shown prior to 23rd December, 1958, on which day the minimum price was fixed at £100 per ton.
 (c) Prior to 1st January, 1958, the prices shown were average market prices. On 1st January, 1958, a minimum price was fixed at £90 and this minimum was later raised to £100 on 22nd December, 1958.

7. **Employment in Silver, Lead and Zinc Mining.**—Particulars of the number of persons employed in mining for these metals are shown in paras. 4 (ii), page 1043 and 4 (iii), page 1044.

§ 6. Copper.

1. **Historical.**—Copper was first discovered in Australia in 1842, at Kapunda in South Australia and in the Northampton district of Western Australia. The subsequent large scale mining of the South Australian deposits contributed significantly to that State's development, but now only very small quantities are mined in South Australia.

The mining of copper commenced in New South Wales in 1847, near Rockley. Copper was first recognized in the Cobar district in 1869, and large scale mining continued at Cobar until 1952. Other fields were opened at Mt. Hope in 1878, Nymagee in 1880 and Captain's Flat in 1882 but of these, only Captain's Flat is still producing.

The first important discovery of copper in Queensland was made in 1862, when a rich lode was found near Clermont. Copper was discovered in the Herberton mineral field in 1879 and at Mt. Morgan in 1882. The copper ore body at Mt. Isa was not recognized as an outcrop when the lead-zinc ore body was discovered in 1923, and was discovered as a result of underground development.

Copper mining was first undertaken at Mt. Isa during the 1939-45 War, but it was not until the erection of a copper smelter at that centre that large scale production commenced. The Mt. Isa mine is today Australia's largest producer of copper.

In Tasmania, the Mt. Lyell deposit was discovered in 1886.

2. **Methods of Mining and Treatment.**—Most of the large copper ore bodies contain the mineral chalcopyrite, an iron-copper sulphide. Copper ore is mined by open-cut methods at Mt. Morgan and Mt. Lyell and by underground methods at Mt. Isa, Captain's Flat and Ravenshorpe (Western Australia). Oxidized copper ore is mined at Mt. Isa and at numerous other localities, mainly in Western Australia.

It is the practice for the sulphide ore to be finely ground and for the chalcopyrite to be recovered by flotation. At Mt. Lyell and Mt. Morgan, the tailings from the copper flotation are subjected to a further flotation and a pyrite concentrate is produced. The oxidized ore mined at Mt. Isa is not concentrated and is fed direct to the smelters.

3. **Mine Production.**—The following table shows for 1958 the copper content of all minerals produced in the several States and the Northern Territory:—

COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED: 1958
(Tons.)

Mineral in which Contained.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Copper Ore, Concentrate, etc.	1,054	..	49,748	1	1,107	10,544	8,660	71,114
Gold Ore, Concentrate, etc.	(a)	..	..	..	..	..	..	(a)
Lead Concentrate	2,507	..	763	..	..	..	..	3,270
Lead-Copper Concentrate ..	..	..	..	..	..	666	..	666
Zinc Concentrate	462	..	..	..	..	203	..	665
Total	4,023	..	50,511	1	1,107	11,413	8,660	75,715

(a) Less than half a ton.

The following were the principal sources of copper during 1958:—

- (i) *New South Wales.* Most of the copper produced in this State was contained in lead concentrate milled at Broken Hill. At Captain's Flat, copper was contained in both copper and lead concentrates. Small quantities of copper were precipitated from water pumped from old mine workings, mainly at Cobar.
- (ii) *Victoria.* No copper is produced in Victoria.
- (iii) *Queensland.* Mt. Isa Mines Ltd. was the most important producer in Queensland, with its output of copper concentrate contained in copper sulphide concentrate, oxidized copper ore and lead concentrate. Copper concentrate containing appreciable gold and silver, was also produced at Mt. Morgan.
- (iv) *South Australia.* Only a negligible quantity of copper was produced from areas which in the past were important for copper.
- (v) *Western Australia.* A copper concentrate was produced by Ravensthorpe Copper Mines N.L. However, oxidized ore, which is used for fertilizer manufacture, was mined at various other localities.
- (vi) *Tasmania.* Copper concentrate was produced at Mt. Lyell. Lead-copper concentrate and zinc concentrate milled at Rosebery made up the remainder of Tasmania's production. At Mt. Lyell, small amounts of copper were precipitated from water pumped from old mine workings in the vicinity.
- (vii) *Northern Territory.* Copper concentrates were produced at Tennant Creek by Peko Mines Ltd. At Rum Jungle, Territory Enterprises Pty. Ltd. produced a copper concentrate and a copper precipitate in association with uranium mining. Small quantities of ore were mined at other localities.

The table hereunder shows the quantities of copper contained in minerals produced in the several States and the Northern Territory during the years 1954 to 1958:—

COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED.
(Tons.)

State or Territory.	1954.	1955.	1956.	1957.	1958.
New South Wales	3,182	3,492	4,289	4,382	4,023
Queensland	27,857	31,858	35,708	35,786	50,511
South Australia	(a)	..	1	2	1
Western Australia	380	699	740	788	1,107
Tasmania	9,880	8,394	8,807	10,984	11,413
Northern Territory	592	2,869	5,002	7,313	8,660
Australia	41,891	47,312	54,547	59,255	75,715

(a) Less than half a ton.

4. **Smelter and Refinery Production of Copper.**—Most of the copper concentrate milled in Australia is smelted locally, blister copper being produced at Mt. Isa, Mt. Morgan, Mt. Lyell and Port Kembla. Port Kembla smelts all of the concentrate from Captain's Flat and some from Tennant Creek.

Blister copper smelted at Mt. Isa is railed to Townsville for electrolytic refining at the refinery which commenced production there in 1959. Mt. Lyell blister copper is electrolytically refined at Mt. Lyell and the bulk is remelted and cast into primary shapes at Port Kembla. Mt. Morgan blister copper is shipped to Port Kembla, where together with blister produced at Port Kembla, it is refined. Most Port Kembla copper is electrolytically refined, although fire refining, which is a cheaper process and undertaken when there are no other metals to be recovered, is used to a lesser extent. Copper from some copper drosses and speisses, by-products of lead refining operations at Port Pirie, is also extracted at Port Kembla.

At Port Kembla, gold and silver contained in electrolytic refining tank house slimes from Mt. Lyell and from Port Kembla, are recovered.

In the following table, details are given of the production of blister copper, and the production and sales of refined copper for the years 1954 to 1958:—

METALLIC COPPER: PRODUCTION AND SALES, AUSTRALIA.

(Tons.)

Particulars.	1954.	1955.	1956.	1957.	1958.
Blister Copper—					
Production (a) (b) ..	38,047	37,439	49,030	50,403	64,608
Refined Copper (c)—					
Production (a)	29,287	28,148	29,307	32,880	43,276
Sold to Australian Consumers (d)	29,361	27,366	29,038	34,114	43,035
Sold for Export (d) ..	..	..	650	..	..

(a) Source: Bureau of Mineral Resources.
(c) Refined from domestic primary copper.

(b) Production for refining in Australia or overseas.
(d) Source: Australian Mines and Metals Association.

5. **Production in Principal Countries and World Total.**—The following table shows the mine production of copper during 1956, 1957 and 1958 in the principal producing countries, as published by the Minerals Resources Division of the United Kingdom Overseas Geological Surveys and their estimate of total world production in those years.

COPPER: MINE PRODUCTION IN PRINCIPAL COUNTRIES.

(Tons.)

Country.	1956.	1957.	1958.
United States of America	985,854	970,410	874,401
Chile	482,004	477,952	475,350
U.S.S.R.	(a) 425,000	(a) 465,000	(a) 475,000
Rhodesia and Nyasaland	399,461	431,732	401,341
Canada	316,839	320,633	312,022
Belgian Congo(b)	246,016	238,418	229,610
Japan	77,230	80,417	79,827
Australia	54,547	59,255	75,715
Mexico	53,998	59,643	63,937
Peru	45,506	56,271	52,772
Union of South Africa	45,762	44,811	48,763
<i>Estimated World Total</i>	<i>3,440,000</i>	<i>3,500,000</i>	<i>3,400,000</i>

(a) Estimated.

(b) Smelter production.

6. **Prices.**—From the outbreak of war in 1939 to August, 1953, in the United Kingdom and to October, 1954, in Australia, the price of copper was fixed by regulation. Private trading has now been resumed in both countries. Details of the average market price for the years shown are given in terms of Australian currency and sterling in the following table:—

AVERAGE PRICE OF ELECTROLYTIC COPPER IN AUSTRALIA AND THE UNITED KINGDOM.

(£ per ton.)

Country.	1954.	1955.	1956.	1957.	1958.
Australia — in Australian currency(a)	310	437	435	341	284
United Kingdom—in sterling	249	352	304	220	193

(a) *Ex works Port Kembla.*

7. **Employment in Copper Mining.**—Particulars of the numbers of persons engaged in the mining of copper and copper-gold ores are shown in paras. 4 (ii), page 1043 and 4 (iii), page 1044.

8. **Assistance to the Copper-mining Industry.**—Following a Tariff Board inquiry which recommended that the industry should be assisted by stabilizing the price of copper at £330 a ton, the Government decided in 1958 to provide this assistance partly by duty and partly by bounty. The bounty is payable on copper sold on the Australian market, with a maximum of £45 a ton, or such lesser bounty as will give a return of 10 per cent. on assessed capital employed in the production of copper. The bounty reduced the net effective price of copper to Australian consumers from £330 to £285. A duty is imposed on imported copper when the Australian equivalent of the London Metal Exchange price falls below £275 (£Stg.220), increasing by £1 for each £1 that the Australian equivalent falls below £275. Including freight and other charges, the landed cost is thus expected to be maintained at about £285 so long as the Australian equivalent of the London Metal Exchange price is not in excess of £275.

§ 7. Tin.

1. **Historical.**—Although specimens of tin had been found in New South Wales as early as 1851 it was not until tin stone was discovered near Inverell in 1872 that mining operations commenced. The New England area is still the most important producing area in New South Wales.

The first notable discovery of tin in Queensland occurred in 1872, when rich deposits of stream tin were found in the country to the south of Warwick but these alluvial deposits soon became exhausted. In 1879, important discoveries were made in the Herbert River district and rich fields, including that at Herberton, were opened up.

Tin was first discovered in Western Australia in 1888, and since then has been found in several widely separated localities in the State. More than half of the production to date has come from the Greenbushes Mineral Field, and most of the remainder from the Pilbara goldfield.

Tin mining in Tasmania dates from the year 1871, when the Mount Bischoff mine was discovered. Soon after, rich deposits were located in the north-east of the State and near St. Helens. In 1875, tin was discovered at Mt. Heemskirk.

2. **Present Methods of Mining and Treatment.**—All tin produced in Australia is contained in tin concentrate, which is usually of the mineral cassiterite (tin oxide). The greater proportion of the production is obtained from alluvial workings as a gravity concentrate. In the lode deposits, tin is usually not associated with other recoverable minerals. However, at two mines in Tasmania tin is associated with wolfram and other sulphide minerals. At these mines, a gravity concentrate of tin, wolfram and sulphide minerals is obtained and from this the wolfram is separated by electromagnetic means. The tin and sulphide minerals are separated by flotation, the sulphides being floated off and the tin remaining as tailings.

3. **Mine Production.**—The following table sets out the tin content of tin concentrate produced in Australia during the years 1954 to 1958. No tin is included in minerals other than tin concentrate.

TIN: CONTENT OF TIN CONCENTRATES PRODUCED: STATES.

(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
New South Wales	272	270	269	211	239
Victoria	26	2	..	(a)	..
Queensland	730	770	630	772	1,019
Western Australia	80	119	240	182	94
Tasmania	947	853	938	777	883
Northern Territory	20	3	1	10	2
Australia	2,075	2,017	2,078	1,952	2,237

(a) Less than half a ton.

The following were the principal sources of production in 1958:—

- (i) *New South Wales.* Virtually the whole of the State's production was from alluvial deposits. The New England region mainly around Tingha produced two-thirds of the total production.
- (ii) *Victoria.* No tin was produced in Victoria in 1958.
- (iii) *Queensland.* Most of the tin concentrate produced in Queensland was from the Herberton field, where the main producers were Tableland Tin N.L. and Ravenshoe Tin Dredging Ltd. Both of these operators produced alluvial tin concentrate. Tin concentrate was also produced in the Chillagoe, Kangaroo Hills and Cooktown districts.
- (iv) *South Australia.* No tin was produced in South Australia.
- (v) *Western Australia.* In 1958, nearly all of the tin concentrate produced in Western Australia was lode tin won from the Pilbara field.
- (vi) *Tasmania.* Most of the tin concentrate produced in Tasmania is won in the north-east part of the State, from both lode and alluvial deposits. The Aberfoyle Tin N.L., operating a lode deposit in north-east Tasmania, was the largest producer of tin concentrate in Australia during 1958 and this mine, together with Storey's Creek Tin Mining Co. N.L., produced wolfram concentrate, as well as tin concentrate.
- (vii) *Northern Territory.* In 1958, small quantities were won at various localities.

4. **Smelting and Refining.**—Except for occasional small parcels of concentrate shipped to oversea smelters, all local production is treated by the two tin smelters located in Sydney. The combined capacity of the two smelters is well in excess of the domestic supply of concentrates and there seems little prospect of this capacity being fully utilized in the foreseeable future unless concentrates could be economically imported and smelted.

The production of refined tin in Australia from locally produced tin concentrate during recent years, as recorded by the Bureau of Mineral Resources, was as follows:—1954, 2,063 tons; 1955, 2,004 tons; 1956, 1,850 tons; 1957, 1,806 tons and 1958, 2,121 tons.

5. **Production in Principal Countries and World Total.**—World production of tin reached its maximum in 1941 when 241,400 tons were recorded. The chief producing countries are—Federation of Malaya, Indonesia, China, Bolivia, Belgian Congo and Thailand and in recent years these countries have produced approximately 90 per cent. of the total production. Australia's share of the world's tin production is about 1 per cent.

The production of tin ore (metal content) as published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, for the principal producing countries in 1957 and 1958 was as follows.

TIN : PRODUCTION IN PRINCIPAL COUNTRIES.

(Tons.)

Country.	Production.		Country.	Production.	
	1957.	1958.		1957.	1958.
Malaya, Federation of	59,293	38,458	Australia ..	1,952	2,237
Indonesia	27,721	23,200	Union of South Africa	1,463	1,416
China(a)	16,000	18,000	Portugal	1,127	1,249
Bolivia	27,796	17,731	Burma	694	(b) 1,200
Belgian Congo ..	14,281	11,214	United Kingdom ..	1,080	1,116
Thailand	13,528	7,726	<i>Estimated World</i>		
Nigeria	7,534	6,154	<i>Total(c)</i> ..	180,000	134,000

(a) Estimated smelter production.

(b) Estimated.

(c) Excludes U.S.S.R.

6. Prices.—At the outbreak of war in September, 1939, the price of tin in Australia and in London was fixed by regulation. London control of tin prices ceased on 14th November, 1949, while the Australian price was decontrolled on 21st April, 1953. Details of the movement in average market prices for the years 1954 to 1958 are given in terms of Australian currency and sterling in the following table.

AVERAGE PRICE OF TIN IN AUSTRALIA AND THE UNITED KINGDOM.

(£ per ton.)

Country.	1954.	1955.	1956.	1957.	1958.
Australia — in Australian currency	911	947	1,014	992	995
United Kingdom—in sterling	720	741	788	755	735

7. Employment in Tin Mining.—The number of persons employed in tin mining is shown in paras. 4 (ii), page 1043 and 4 (iii), page 1044.

§ 8. Iron.

1. Historical.—Iron ore was first mined in New South Wales to supply raw material for the ironworks that were established near Mittagong in 1852. Iron ore for the ironworks established later at Lithgow was drawn from Carcoar, near Bathurst.

In South Australia, the iron ore deposits of the Middleback Ranges, near Whyalla, were first mined by the Broken Hill Proprietary Co. Ltd. in 1900 to provide a flux for lead smelting operations at Port Pirie. When that Company opened its Newcastle steelworks in 1915, it greatly expanded ore production from the Middleback Ranges and most of the Australian steel industry's requirements of iron ore still come from this source.

Regular shipments of iron ore from Yampi Sound, north of Derby in Western Australia, to the steel works at Port Kembla commenced in 1951. Iron ore for the iron smelter at Wundowie which commenced operations in 1948, has in recent years been provided entirely from the deposits at Koolyanobbing, near Southern Cross.

Besides the large quantities of iron ore that are mined for metal extraction purposes, smaller quantities of iron oxide are mined for other purposes, such as gas purification, cement manufacture, coal washing and fluxing.

2. **Methods of Mining and Treatment.**—All iron ore and iron oxide is won by opencut mining. The ore is selectively mined and crushed and screened to provide a standard assay and size for blast furnace use. No concentration is carried out. However, the iron ore from Yampi Sound is powdery and friable and it has to be sintered, or agglomerated, before making up the furnace charge.

3. **Mine Production of Iron Ore.**—Iron oxide deposits exist in all States and in the Northern Territory but at present iron oxide for metal extraction purposes, termed iron ore in this chapter, is produced in two States only. The following table shows the estimated iron content of iron ore produced during the years 1954 to 1958.

IRON : ESTIMATED IRON CONTENT OF IRON ORE PRODUCED.

(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
South Australia	1,863,589	1,978,586	2,331,611	2,203,004	2,179,187
Western Australia	410,741	325,579	211,215	262,519	365,275
Australia	2,274,330	2,304,165	2,542,826	2,465,523	2,544,462

The producing centres during 1958 were as follows:—

- (i) *South Australia.* During 1958, 3,352,600 tons of iron ore were drawn from the Iron Monarch and Iron Baron deposits in the Middleback Ranges. Selected foundry grade ore was diverted as required to the Whyalla blast furnace, but the greater part was shipped to Newcastle and Port Kembla for smelting. A small quantity was dispatched to Port Pirie for use as a flux in lead smelting operations.
- (ii) *Western Australia.* During the year, 536,713 tons of ore were shipped from Yampi Sound, north of Derby, to New South Wales for sintering and smelting. A quantity of 36,215 tons was mined at Koolyanobbing, near Southern Cross, for pig iron production at Wundowie.

4. **Mine Production of Iron Oxide.**—Production of iron oxide, excluding that used for metal extraction (iron ore) and mineral pigments, in the several States during 1958, according to end use, is shown in the following table. Small quantities of iron ore mined in the Middleback Ranges are used for fluxing purposes, mainly at Port Pirie, but this production is included with "iron ore" in para. 3 above. Only total quantities of iron oxide produced are recorded; particulars of metallic content are not available.

IRON OXIDE PRODUCTION, 1958.

(Tons.)

Use.	New South Wales.	Victoria.	Queensland.	Tasmania.	Australia.
For gas purification ..	2,106	758	..	..	2,864
For cement manufacture ..	831	..	996	4,266	6,093
For coal washing ..	25	..	..	..	25
Total(a)	2,962	758	996	4,266	8,982

(a) Excludes iron oxide for fluxing which is included with iron ore in para. 3 above.

The principal sources of iron oxide production during 1958 were as follows:—

- (i) *New South Wales.* Quantities of iron oxide for gas purification were obtained from deposits near Port Macquarie, while that used for cement manufacture was mined from the Mudgee and Rylstone mining divisions. Magnetite, used in coal washing, was produced from beach sand deposits near Murwillumbah.
- (ii) *Victoria.* Limonite ore used for gas purification was mined at Buchan.
- (iii) *Queensland.* Iron oxide produced for cement manufacture was mined near Townsville.
- (iv) *Tasmania.* Iron oxide for cement manufacture was mined in the vicinity of Penguin.

Particulars of Australian production of iron oxide for the years 1954 to 1958, according to end use, are shown in the following table.

IRON OXIDE PRODUCTION: AUSTRALIA.

(Tons.)

Use.	1954.	1955.	1956.	1957.	1958.
For gas purification ..	3,515	5,328	6,479	5,338	2,864
For cement manufacture ..	6,453	7,400	9,126	9,759	6,093
For coal washing ..	1,795	183	..	4	25
Total(a) ..	11,763	12,911	15,605	15,101	8,982

(a) Excludes iron oxide for fluxing which is included with iron ore in para. 3 above.

5. **Iron and Steel Production.**—(i) *Australia.* The production of pig-iron and steel ingots in Australia, of which New South Wales is the main producing State, is shown in the following table for each of the years ended 31st May, 1950 to 1959.

PIG-IRON AND INGOT STEEL: PRODUCTION(a), AUSTRALIA.

(Tons.)

Year Ended 31st May.	Pig-iron. (b)	Steel Ingots.	Year Ended 31st May.	Pig-iron. (b)	Steel Ingots.
1950	1,097,635	1,217,971	1955	1,868,841	2,208,708
1951	1,313,332	1,443,831	1956	1,910,521	2,320,289
1952	1,430,027	1,521,386	1957	2,098,352	2,773,995
1953	1,691,693	1,801,028	1958	2,283,925	3,037,705
1954	1,826,711	2,116,813	1959	2,293,709	3,203,584

(a) Includes recovery from scrap.

(b) Includes pig-iron for castings; excludes ferro-alloys.

In 1958, eight blast furnaces were operating in Australia; three at Newcastle and three at Port Kembla, in New South Wales, one at Whyalla, South Australia, and one at Wundowie, Western Australia. During 1958, ingot steel was produced from 27 open-hearth furnaces (17 at Newcastle and 10 at Port Kembla) and from 10 electric furnaces (5 at Newcastle, 3 at Melbourne, 1 at Whyalla and 1 at Port Kembla).

(ii) *New South Wales.* The principal producers in Australia, both in New South Wales, are the Broken Hill Proprietary Co. Ltd. at Newcastle and Port Kembla, and its subsidiary, Australian Iron and Steel Ltd. at Port Kembla.

(iii) *South Australia.* At Whyalla in South Australia, the Broken Hill Proprietary Co. Ltd. produces pig iron using locally produced raw materials together with metallurgical coke from New South Wales. A small quantity of steel ingots is produced from an electric furnace.

(iv) *Western Australia.* In Western Australia, the State-owned Wundowie Wood-distillation, Charcoal Iron and Steel Industry produces pig iron using charcoal for smelting. This high grade iron is used in the manufacture of spheroidal graphite cast iron, and considerable quantities are exported. At Kwinana, The Broken Hill Proprietary Co. Ltd. produces steel products from billets imported from New South Wales.

6. **Production of Iron and Steel in Principal Countries.**—Particulars of the production in the principal countries and the estimated world total production during the years 1957 and 1958 according to figures published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, are shown in the next table.

IRON AND STEEL: PRODUCTION IN PRINCIPAL COUNTRIES.

('000 Tons.)

Country.	Pig-iron and Ferro-alloys.		Steel Ingots and Castings.	
	1957.	1958.	1957.	1958.
United States of America ..	72,141	52,507	100,638	76,120
U.S.S.R.	36,400	39,000	50,200	54,000
Germany, Federal Republic ..	18,068	16,396	24,120	22,425
United Kingdom	14,283	12,975	21,699	19,566
France	11,727	11,778	13,873	14,385
Japan	7,075	7,588	12,372	11,927
China(a)	5,400	9,300	5,300	11,000
Italy	2,170	2,133	6,680	6,172
Belgium	5,493	5,432	6,135	5,911
Poland	3,624	3,803	5,220	5,542
Czechoslovakia	3,507	3,714	5,084	5,423
Canada	3,503	2,832	4,525	3,880
Saar	3,116	3,054	3,384	3,406
Luxemburg	3,315	3,233	3,438	3,325
Australia	2,208	2,276	3,020	3,156
Germany, Eastern	1,636	1,747	2,849	2,995
Sweden	1,519	(b) 1,279	2,443	2,360
Austria	1,929	1,789	2,469	2,355
India	1,911	2,102	1,710	1,813
<i>Estimated World Total ..</i>	<i>207,700</i>	<i>193,000</i>	<i>287,500</i>	<i>269,000</i>

(a) Estimated.

(b) Excludes ferro-alloys.

§ 9. Mineral Sands.

1. **Historical.**—In recent years, the growing world demand for titanium metal has brought about a rapid expansion of Australian mineral sands mining. Australia is the largest producer of rutile and zircon in the world and nearly all of this production comes from the mineral sands deposits along the beaches of the east coast. The ilmenite produced on the east coast has proved unsuitable for titanium oxide pigment manufacture and most of the production is discarded. However, ilmenite produced from mineral sands mined in Western Australia since 1956 has a much lower chromic oxide content than east coast ilmenite and is therefore suitable for paint manufacture.

The first commercial development of the mineral sands deposits commenced at Byron Bay in New South Wales in 1934, when a mixed zircon-rutile-ilmenite concentrate was prepared. Large scale production of zircon-rutile concentrate commenced in Queensland in 1941 when electromagnetic separators were installed to separate the ilmenite. In 1943, after the installation of electrostatic separators, a rutile concentrate was produced. The Commonwealth Government banned the export of mixed concentrates in 1944, and all producers now turn out separate concentrates of rutile, zircon, ilmenite and monazite.

Production of rutile and zircon in 1958 was considerably lower than that of the previous year, mainly because of reduced prices offering on world markets. Virtually all rutile and zircon concentrates are exported overseas.

2. **Present Methods of Mining and Treatment.**—Mineral bearing sands are usually recovered from sand dunes but deposits occurring below sea level are recovered by suction dredges. The mineral sands and beach sand (quartz) are gravity concentrated, either by shaking tables or by spiral concentrators, resulting in the complete elimination of quartz and leaving a mixed concentrate of heavy minerals. Magnetic ilmenite and monazite are separated by electromagnetic methods and are then separately recovered using increasing magnetic intensities. The remaining zircon and rutile are separated using electrostatic separators. The above method is employed at nearly all plants, but Zircon Rutile Ltd., at Byron Bay, recovers a zircon concentrate from the raw sand using froth flotation.

3. **Mine Production.**—(i) *Titanium Dioxide.* The following table shows the quantities of titanium dioxide contained in rutile and ilmenite concentrates produced during the years 1954 to 1958.

TITANIUM DIOXIDE: CONTENT OF CONCENTRATES PRODUCED.

(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
CONTAINED IN RUTILE CONCENTRATE.					
New South Wales	21,872	33,045	62,470	83,363	44,915
Queensland	21,139	24,198	30,772	41,500	35,755
Western Australia .. ..	..	..	..	..	285
Australia	43,011	57,243	93,242	124,863	80,955

CONTAINED IN ILMENITE CONCENTRATE.

New South Wales	228	230	481	485	59
Queensland	2	32	..	78	..
Western Australia .. ..	..	..	1,779	38,325	38,219
Australia	230	262	2,260	38,888	38,278

(ii) *Zircon.* The quantities of zircon mineral contained in zircon concentrate produced during the years 1954 to 1958 are shown in the table below.

ZIRCON: CONTENT OF ZIRCON CONCENTRATE PRODUCED.

(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
New South Wales	27,037	32,465	50,135	58,747	32,230
Queensland	13,883	15,745	21,634	28,956	26,412
Western Australia .. ..	..	..	..	..	103
Australia	40,920	48,210	71,769	87,703	58,745

(iii) *Other Products.* Small quantities of monazite concentrate, tin concentrate, magnetite and garnet concentrate were also recovered from mineral sands.

(iv) *Sources of Production.* The principal sources of mineral sands treated during 1958 were:—

(a) *New South Wales and Queensland.* The main deposits of mineral sands occur along 300 to 400 miles of the eastern Australian coast from Swansea, New South Wales to Curtis Island, Queensland. At present, the principal mining operations are located within a 90 mile stretch of coast extending from Byron Bay, New South Wales to North Stradbroke Island, Queensland.

(b) *Western Australia.* Deposits of mineral sands occur on the south-west coast of Western Australia, in the Bunbury and Albany districts.

4. *Employment in Mineral Sands Mining.*—Particulars of the number of persons employed in mineral sands mining are shown in paras. 4 (ii), page 1043 and 4 (iii), page 1044.

§ 10. Aluminium.

1. *Mine Production.*—The source of aluminium is the ore bauxite, which is produced in small quantities in New South Wales, Victoria and Queensland. Australian production is used for the manufacture of refractories, all bauxite used for metal extraction during 1958 being imported from Indonesia. Large deposits of bauxite outcrop exist on the Cape York Peninsula in North Queensland and it is expected that this raw material will be refined in Australia when mining commences. The alumina content of bauxite produced in Australia during the years 1954 to 1958 is shown in the following table:—

ALUMINA : CONTENT OF BAUXITE PRODUCED.

(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
New South Wales	710	902	1,578	1,354	633
Victoria	1,320	1,644	2,600	1,910	2,304
Queensland(a)	410	860	440	494	596
Australia	2,440	3,406	4,618	3,758	3,533

(a) Estimated.

2. *Refinery Production.*—A refinery for the production of alumina and refined aluminium was constructed at Bell Bay on the Tamar River, in Northern Tasmania. The location of this refinery was determined by the availability of large supplies of hydro-electric power. Production of alumina commenced in February, 1955, and of refined aluminium in September, 1955. The following table shows the production of alumina and refined aluminium in Australia during the years 1955 to 1958:—

ALUMINA AND REFINED ALUMINIUM : PRODUCTION, AUSTRALIA.

(Tons.)

Refinery Product.	1955.	1956.	1957.	1958.
Alumina	(a) 4,134	16,863	20,116	22,490
Refined Aluminium	(b) 1,248	9,143	10,624	10,869

(a) Production commenced February.

(b) Production commenced September.

Source: Bureau of Mineral Resources.

§ 11. Uranium.

Uranium concentrate has been produced in Australia since 1954 but particulars of the quantity of U_3O_8 concentrate produced and its value are not available for publication. All U_3O_8 concentrate is exported overseas. During 1958, the principal producing centres were as follows:—

- (i) *Queensland.* Uranium ore was mined by opencut methods at Mary Kathleen, 33 miles east of Mt. Isa, by Mary Kathleen Uranium Ltd. A treatment plant producing U_3O_8 concentrate commenced operating at this site in June, 1958.
- (ii) *South Australia.* The South Australian Department of Mines mined uranium ore by underground methods at Radium Hill, 289 miles north-east of Adelaide. A concentrate of heavy minerals is produced at the mine and this is railed to a treatment plant at Port Pirie for the chemical extraction of U_3O_8 concentrate.
- (iii) *Northern Territory.* At Rum Jungle, Territory Enterprises Pty. Ltd., acting on behalf of the Australian Atomic Energy Commission, mined and treated uranium-copper and copper ores to produce U_3O_8 concentrate, copper concentrate and copper precipitate. Mining operations ceased at Rum Jungle in November, 1958, but sufficient ore was stockpiled to permit the continuation of full scale production of uranium concentrate for some years.

During 1958, ore was mined in the South Alligator River area. Two companies, the United Uranium N.L. and the South Alligator Uranium N.L. opened treatment plants in 1959.

§ 12. Other Metallic Minerals.

1. *Tungsten.*—In recent years, Tasmania has been the principal State producing tungsten ores, scheelite being mined on King Island in Bass Strait and wolfram being mined in association with tin ores in the north-east part of the State. Because of low world prices, scheelite production on King Island ceased in August, 1958, but the operator, King Island Scheelite (1947) Ltd., recommenced production on a limited scale in 1960.

Particulars of the production of tungstic oxide contained in scheelite and wolfram concentrates produced during the years 1954 to 1958 are shown in the following table.

TUNGSTIC OXIDE (WO_3) : CONTENT OF CONCENTRATES PRODUCED.
(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
CONTAINED IN SCHEELITE CONCENTRATE.					
New South Wales	6	7	2	1	1
Queensland	(a)	(a)	3	1	..
Western Australia	3	5	..	..	..
Tasmania	852	948	985	948	477
Australia	861	960	990	950	478
CONTAINED IN WOLFRAM CONCENTRATE.					
New South Wales	2	1	2	(a)	..
Queensland	38	51	46	19	5
Tasmania	420	389	443	391	360
Northern Territory	51	81	101	49	7
Australia	511	522	592	459	372

(a) Less than half a ton.

2. **Manganese.**—There has been considerable expansion of manganese ore production in recent years, due mainly to the relaxation of some provisions of the embargo on export of manganese ores. Western Australia, where activities were centred around Horseshoe in the Peak Hill District and Ant Hill and Mt. Sunday in the Pilbara District, continues as the main producing State. Northern Territory production is at Mucketty, near Renner Springs.

The following table shows the manganese content of metallurgical grade and the manganese dioxide content of battery and other grades of manganese ore produced during the years 1954 to 1958:—

MANGANESE : CONTENT OF MANGANESE ORE PRODUCED.
(Tons.)

Year.	Metallurgical Grade.				Battery and Other Grades.			
	In terms of Manganese (Mn) Content.				In terms of Manganese Dioxide (MnO ₂) Content.			
	N.S.W.	Q'land. (a)	W. Aust.	Australia.	N.S.W.	W. Aust.	N. Terr.	Australia.
1954 ..	322	60	12,336	12,718	644	..	..	644
1955 ..	443	35	19,984	20,462	403	..	975	1,378
1956 ..	436	140	25,280	25,856	371	179	914	1,464
1957 ..	391	557	33,956	34,904	385	186	668	1,239
1958 ..	516	3,181	21,926	25,623	511	195	2,113	2,819

(a) Estimated.

Zinc concentrates produced at Broken Hill and Rosebery, in Tasmania, contain manganese. However, in 1958, only 306 tons of manganese dioxide, recovered as a by-product of zinc refining at Risdon, near Hobart, were utilized.

3. **Other.**—The production, in 1958 (1957 shown in parentheses) of other metallic minerals worthy of note, was as follows:—

Antimony. The antimony content of antimony-bearing minerals produced was 1,356 tons (1,209 tons). Of this amount, 664 tons (724 tons) were in lead concentrate and 692 tons (485 tons) in 1,116 tons (852 tons) of antimony ore and concentrate.

Beryllium. Production of beryllium ore was 247 tons (395 tons) which came mainly from Western Australia where the Pilbara gold field was the main producing area. The beryllium oxide content of the ore was 2,900 units of 22.4 lb. (4,570 units).

Chromite. Production of chromite was 776 tons (3,049 tons) with chromic oxide content of 386 tons (1,420 tons). This production came from Rockhampton in Queensland and Gundagai in New South Wales.

Tantalite-Columbite. The production of tantalite-columbite concentrate was 13,507 lb. (50,038 lb.) and the whole of this output came from Western Australia. The tantalum pentoxide and columbium pentoxide content of the concentrates was 6,736 lb. (23,499 lb.).

Other. Other metallic minerals produced in Australia in small quantities during 1958 were molybdenite concentrate, native osmiridium, and platinum concentrate.

§ 13. Coal.

1. **Historical.**—Coal was probably the first of Australia's mineral products to be discovered, being reported from the neighbourhood of Newcastle in 1796. In the following year, outcrop coal was discovered at Coalcliff, 40 miles south of Sydney, and at the entrance to the Hunter River in the Newcastle district. By 1799, outcrop coal was being exported overseas from the latter field. All production was from the Newcastle district until 1857 when the first coal was produced from the southern field. The estimated production in 1830 was 4,000 tons and this increased to 30,000 tons in 1840, 70,000 tons in 1850 and 370,000 tons in 1860. In 1864, the first coal was discovered in the Greta-Cessnock-Maitland field which has since become the principal Australian source of gas coal.

The discovery of coal in Victoria dates from the year 1825, when the mineral was reported to have been found at Cape Paterson, but only a small quantity of coal was mined in Victoria prior to the opening of the State-owned mine at Wonthaggi in 1909. Present day Victorian production is obtained almost exclusively from this mine. In Victoria, brown coal was discovered at Lal Lal in 1857 and in the Latrobe Valley in 1874. Mining operations were first undertaken in 1889 but it was not until after the 1914-18 War that large scale mining began.

In Queensland, coal was first discovered near Ipswich in 1827 and the first colliery was established there in 1846. At Blair Athol, 240 miles west of Rockhampton, coal was discovered in 1864. This field is unique in that the field's total reserves of 200 million tons are available for opencut mining in a seam attaining a thickness of over 90 feet, the greatest thickness of black coal yet found in Australia.

The deposits of black coal at Leigh Creek, 377 miles north of Adelaide, were discovered in 1888 during dam-sinking operations. Small quantities of coal were mined in 1907 and 1917 but it was not until 1944 that extensive opencut mining operations began.

In Western Australia, coal was first discovered on the Irwin River in 1846 but the discovery of the Collie field in 1883 proved to be of far greater importance. This field is located 120 miles south of Perth and commercial mining began there in 1898.

There appear to be no reliable records of the earliest discoveries of coal in Tasmania. Coal was mined on the Tasman Peninsula to provide fuel for penal settlements in the vicinity and for Hobart, and mining continued there until about 1877. In 1824, coal was discovered at South Cape Bay near the most southerly part of the island. The most important deposit is the Mt. Nicholas-Fingal-Dalmayne (St. Marys) field in the north-east part of the State.

The mining of black coal on a large scale by opencut methods first began in Australia at Blair Athol in Queensland, where in 1937, the first year of production, 18,494 tons were produced. Opencut mining of black coal was introduced in New South Wales in 1940, in Western Australia in 1943, in South Australia in 1944, and in Tasmania in 1950. The output from opencuts rose slowly up to 1943 when 119,406 tons were produced, increasing rapidly from 1944 and reaching an output of over four million tons in 1952. Since then however, the output from opencut mining has declined and in 1958 it was only 2,065,331 tons. This decline has been mainly due to the closing down of large opencuts in New South Wales, as over-production of coal began to occur late in 1952.

2. Mine Production of Black Coal.—Production of black coal according to rank in the several States during the years 1954 to 1958 is set out in the following table. The tonnages produced by underground mining and opencut mining are also shown.

BLACK COAL : PRODUCTION.
(Tons.)

Particulars.	1954.	1955.	1956.	1957.	1958.
NEW SOUTH WALES.					
Bituminous	15,065,979	14,720,084	14,792,853	15,376,240	15,840,550
Sub-bituminous	17,281	16,313	17,312	13,996	10,398
Total	15,083,260	14,736,397	14,810,165	15,390,236	15,850,948
Underground mines	13,703,289	13,834,824	13,999,615	14,662,155	15,130,633
Opencut mines	1,379,971	901,573	810,550	728,081	720,315
VICTORIA.					
Total(a)	141,318	132,888	118,827	111,569	108,359

BLACK COAL: PRODUCTION—continued.
(Tons.)

Particulars.	1954.	1955.	1956.	1957.	1958.
QUEENSLAND.					
Semi-anthracite ..	72,459	80,442	79,316	68,873	55,190
Bituminous ..	2,377,883	2,459,727	2,472,692	2,475,079	2,392,435
Sub-bituminous ..	310,468	206,996	182,651	157,625	132,748
Total ..	2,760,810	2,747,165	2,734,659	2,701,577	2,580,373
Underground mines ..	2,066,788	2,108,065	2,103,641	2,170,979	2,098,030
Opencut mines ..	694,022	639,100	631,018	530,598	482,343
SOUTH AUSTRALIA.					
Total(b) ..	495,106	455,287	481,463	608,913	755,022
WESTERN AUSTRALIA.					
Total(c) ..	1,018,343	903,792	830,007	838,661	870,882
Underground mines ..	607,727	599,662	621,467	689,882	779,394
Opencut mines ..	410,616	304,130	208,540	148,779	91,488
TASMANIA.					
Semi-anthracite ..	1,162	1,764	1,827	1,847	2,006
Bituminous ..	263,040	297,457	296,886	266,293	274,262
Total ..	264,202	299,221	298,713	268,140	276,268
Underground mines ..	254,122	283,743	280,332	253,108	260,100
Opencut mines ..	10,080	15,478	18,381	15,032	16,168
AUSTRALIA.					
Semi-anthracite ..	73,621	82,206	81,143	70,720	57,196
Bituminous ..	17,848,220	17,610,156	17,681,258	18,229,181	18,615,606
Sub-bituminous ..	1,841,198	1,582,388	1,511,433	1,619,195	1,769,050
Total ..	19,763,039	19,274,750	19,273,834	19,919,096	20,441,852
Underground mines ..	16,773,244	16,959,182	17,123,882	17,887,693	18,376,516
Opencut mines ..	2,989,795	2,315,568	2,149,952	2,031,403	2,065,336

(a) Bituminous coal from underground mines. (b) Sub-bituminous coal from an opencut mine.
(c) Sub-bituminous coal.

The principal producing centres during 1958 were as follows:—

- (i) *New South Wales.* The principal deposits worked were in the vicinity of Newcastle, Cessnock and Singleton (northern field), Lithgow (western field) and Wollongong (southern field). Tonnages mined in 1958 were: northern field, 9,583,595 tons; southern field, 4,693,170 tons and western field, 1,574,183 tons. All open-cut coal was from the northern field.
The coal fields of New South Wales, predominately bituminous, are the most important in Australia, in respect of the magnitude, quality and accessibility of reserves and the extent to which the deposits are being worked. Coal from the various seams differs in properties, coal from the Greta seam worked in the vicinity of Cessnock being particularly suitable for gas making, while coal from the Victoria tunnel, Dudley, Young Wallsend and Borehole seams, all of which are mined near Newcastle, have coking properties and are used in the steel works. Coking coal is also obtained from the Bulli seam which is mined near Wollongong and in the Burragorang Valley. A multi-purpose coal is available in the Singleton area and steaming coals are mined around Newcastle, Lithgow, Cessnock and Wollongong.
- (ii) *Victoria.* Production of black coal in Victoria is restricted to the Gippsland district. The State Coal Mine at Wonthaggi is the main producer, the remaining production coming from small privately-owned mines.
- (iii) *Queensland.* The principal producing centres were Ipswich, 1,490,735 tons; Collinsville, 431,482 tons; Blair Athol, 190,285 tons and Callide, 131,916 tons. Open-cut coal was mined at Blair Athol, Callide and Collinsville and the total coal won by this means was 19 per cent. of total production.
- (iv) *South Australia.* Coal was mined only at Leigh Creek, 377 miles north of Adelaide.
- (v) *Western Australia.* The only coal deposits which have been developed on a commercial scale are at Collie in the south-west of the State and all production during 1958 was from this source.
- (vi) *Tasmania.* Of the total production, 267,491 tons were produced from the Avoca and Mt. Nicholas-Fingal-Dalmayne fields in the north-east of the State. Of the remainder, 2,006 tons of semi-anthracite were produced at the Sandfly mine, near Hobart.

3. **Mine Production of Brown Coal.**—Brown coal is mined only in Victoria and production in recent years has been as follows:—1954, 9,331,255 tons; 1955, 10,112,206 tons; 1956, 10,559,801 tons; 1957, 10,740,989 tons and 1958, 11,643,629 tons. In the past ten years, the output of brown coal has nearly doubled.

4. **Australia's Coal Reserves.**—The latest available estimate of the measured and indicated coal reserves of Australia is that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia, and is shown in the following table. It should be noted that reserves can only be included in the "measured and indicated" categories when sufficient exploratory and testing work has been completed.

COAL RESERVES OF AUSTRALIA.
(Million Tons.)

State.				Bituminous Coal.(a)	Sub-bituminous Coal.	Brown Coal. (Lignite).
New South Wales	..	..	..	8,650	800	..
Victoria ..	..	..	..	12	..	56,100
Queensland ..	..	..	..	749	..	..
South Australia ..	..	..	..	..	144	230
Western Australia ..	..	..	..	..	274	..
Tasmania ..	..	..	..	240	..	..
Australia ..	..	..	..	9,651	1,218	56,330

(a) Includes reserves of a small quantity of semi-anthracite coal.

5. **Production in Principal Countries.**—The following table shows the production of the principal countries in 1957 and 1958 as published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys.

COAL : PRODUCTION IN PRINCIPAL COUNTRIES.
(’000 Tons.)

Country.	Black Coal.		Brown Coal and Lignite.	
	1957.	1958.	1957.	1958.
United States of America ..	460,210	383,205	2,328	2,167
U.S.S.R.	322,000	347,000	134,000	141,000
China(a)	125,000	270,000	..	..
United Kingdom	223,631	215,825	..	..
Germany, Federal Republic ..	134,043	133,221	95,350	92,046
Poland	92,610	93,481	5,862	7,422
France	55,899	56,808	2,258	2,279
Japan	50,914	48,884	1,636	1,557
India	43,449	45,340	..	..
Union of South Africa ..	34,219	36,499	..	..
Belgium	28,627	26,635	..	..
Czechoslovakia	23,799	25,404	50,211	55,940
Australia	19,919	20,442	10,741	11,644
Saar	16,195	16,164	..	..
Spain	13,711	14,196	2,479	2,610
Netherlands	11,195	11,692	283	251
Canada	9,768	8,423	2,008	2,012
Germany, Eastern	2,710	2,857	209,237	211,575
Hungary	2,241	2,585	18,720	21,273
Yugoslavia	1,207	1,188	16,435	17,598
<i>Estimated World Total</i> ..	<i>1,698,000</i>	<i>1,800,000</i>	<i>582,000</i>	<i>600,000</i>

(a) Estimated.

6. **Consumption of Coal in Australia.**—(i) *Black Coal.* Details of the production of black coal in Australia and its disposal are shown in the following table for the years 1953–54 to 1957–58.

BLACK COAL : PRODUCTION AND CONSUMPTION.
(’000 Tons.)

Particulars.	1953–54.	1954–55.	1955–56.	1956–57.	1957–58.
Production(a)	19,424	19,352	19,033	19,711	20,362
Imports	2	5	4	6	9
Total	19,426	19,357	19,037	19,717	20,371
<i>Consumption as Fuel—</i>					
Electricity Generation ..	5,590	5,916	5,922	6,363	6,941
Factories	3,367	3,329	3,101	2,977	2,991
Railway Locomotives(b) ..	3,208	3,112	2,963	2,690	2,217
<i>Bunker Coal—</i>					
Oversea Vessels	32	25	39	9	12
Interstate Vessels	228	218	198	181	171
Total	12,425	12,600	12,223	12,220	12,332
<i>Consumption as raw material—</i>					
Gas works	2,047	2,063	2,031	1,946	1,779
Coke works	3,252	3,314	3,258	3,665	3,841
Total	5,299	5,377	5,289	5,611	5,620
Exports (Oversea)	386	291	194	545	836
Balance—Unrecorded consumption, other purposes(c)	1,316	1,089	1,331	1,341	1,583
Grand Total	19,426	19,357	19,037	19,717	20,371

(a) Includes miners' and colliery coal. change in stocks.

(b) Government railways only.

(c) Includes net

After the 1939-45 War, it was found necessary to augment local supplies of black coal in Australia by increasing imports. The quantity imported reached a post-war peak of 597,866 tons in 1950-51, but since then has declined, as in recent years production has expanded considerably. Since 1952-53, exports have exceeded imports by a wide margin; in 1958-59, exports of black coal were 645,249 tons and imports were 7,526 tons.

(ii) *Brown Coal.* The table following shows the production and distribution of brown coal and the production of briquettes in Victoria for the years 1953-54 to 1957-58.

BROWN COAL: PRODUCTION AND UTILIZATION, VICTORIA.
(*000 Tons.)

Year.	Production.	Consumption as Fuel.			Consumption as Raw Material in Briquette Manufacture.	Briquettes Manufactured.
		Electricity Generation.	Briquette Factory.	Other Factories. (a)		
1953-54	8,731	5,307	780	920	1,560	587
1954-55	9,668	5,899	842	1,088	1,684	631
1955-56	10,383	6,517	843	1,191	1,686	634
1956-57	10,772	6,943	806	1,309	1,613	618
1957-58	10,869	7,020	810	1,297	1,619	626

(a) Recorded consumption.

The briquetting plant of the State Electricity Commission at Yallourn started operations in November, 1924, and the output, which in 1926 was 95,477 tons, had increased to 180,905 tons in 1930 and to 671,779 tons in 1959. Approximately two and a half tons of brown coal are required to make one ton of briquettes. In December, 1956, the Lurgi high pressure brown coal gasification plant at Morwell was opened. This plant is operated by the Gas and Fuel Corporation of Victoria and produces town gas which is sent to Melbourne through 103 miles of pipeline.

7. *Exports.*—The quantities and values of the overseas exports of Australian coal and of bunker coal for overseas vessels for the five years 1954-55 to 1958-59 are shown in the following table. These shipments were made mainly from New South Wales.

COAL: OVERSEA EXPORTS AND BUNKER, AUSTRALIA.

Year.	Oversea Exports.(a)		Bunker Coal for Oversea Vessels.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£A f.o.b.	Tons.	£A f.o.b.
1954-55	291,226	1,147,441	25,363	111,625
1955-56	193,813	780,284	38,749	165,224
1956-57	545,101	2,196,044	9,065	44,116
1957-58	836,336	3,390,628	11,608	50,656
1958-59	645,249	2,676,042	8,187	37,808

(a) Excludes bunker coal.

New South Wales in addition to meeting requirements within that State supplies considerable quantities of coal to other States and for export overseas. Of the total of 15,762,000 tons produced in 1958-59, 1,859,000 tons (12 per cent.) were exported interstate and 645,000 tons (4.1 per cent.) were exported overseas. The demand for bunker coal continues to decline and in 1957-58 a total of 182,000 tons (1 per cent.) of New South Wales production was supplied for interstate and overseas vessels.

8. Value at the Mine in New South Wales.—Particulars of the average values at the mine (or at screens or mine washeries where these are at a distance from the mine) of saleable coal for each district and for New South Wales as a whole are shown in the following table for the years 1954 to 1958. Saleable coal excludes miners' coal, coal consumed at the mines and refuse, etc., removed by the use of hand picking belts or at mine washeries. In calculating these values, coal won by producer consumers is also excluded and in respect of stocks of coal held at grass by the Commonwealth Government only actual sales have been taken into account. No deduction has been made in respect of excise duty operative from 1st November, 1949.

**AVERAGE SELLING VALUE AT THE MINE PER TON OF SALEABLE COAL:
NEW SOUTH WALES.**

(s. d.)

Year.	Northern District.	Southern District.	Western District.	Average for State.
1954.. .. .	60 3	59 0	57 3	59 7
1955.. .. .	59 11	58 10	55 9	59 2
1956.. .. .	59 3	58 1	55 1	58 6
1957.. .. .	58 3	55 7	50 7	56 9
1958.. .. .	56 1	55 0	47 5	54 10

9. Values in New South Wales, United Kingdom and the United States of America.—The following table shows, for the years 1954 to 1958, average values of coal produced in New South Wales, Great Britain and the United States of America. The figures give an indication of changes in average value or price within each country but they do not necessarily show the relative levels as between the countries concerned.

PRODUCTION VALUES OF COAL PER TON: NEW SOUTH WALES, UNITED KINGDOM AND UNITED STATES OF AMERICA.

Country.	1954.	1955.	1956.	1957.	1958.
	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales—Bituminous(a)	59 7	59 2	58 6	56 9	54 10
United Kingdom—Deep mined(b)	63 6	68 0½	77 0	82 1	85 7
United States of America—Bituminous and lignite(c) ..	\$ 4.51	\$ 4.50	\$ 4.82	\$ 5.08	\$ 4.86

(a) Average selling value at the mine per ton of 2,240 lb.; the figures relate to saleable coal and include excise duty. (b) Average value in sterling at the mine per ton of 2,240 lb. (c) Average value in United States currency at the mine per ton of 2,000 lb.

10. Employment in Coal-mines.—The number of persons employed, both above and below ground, in coal-mines in each State for each of the years 1954 to 1958 is shown in the following table.

COAL-MINES: PERSONS EMPLOYED.(a)

Year.	New South Wales.	Victoria.		Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		Black.	Brown.					
1954	19,979	786	1,598	3,638	270	1,583	358	28,212
1955	19,260	687	1,502	3,634	280	1,432	367	27,162
1956	17,918	610	1,566	3,568	260	1,190	349	25,461
1957	16,622	561	1,579	3,493	223	1,145	301	23,924
1958	15,463	516	1,540	3,295	230	999	292	22,335

(a) Average number of persons employed (including working proprietors) during whole year.

The year of maximum employment was 1926 when 31,774 persons were engaged in the coal-mines of Australia. Shortly after that year, the industrial depression and a prolonged stoppage of work on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. After 1933, there was a gradual increase up to a level of about 23,000 which was maintained during the war years. There was a further increase after the war to 28,303 in 1952, but since then the number in employment has fallen again. In 1958, it was 22,335. In New South Wales, during 1958, 12,354,000 tons of coal or 81.6 per cent. of the total output of underground coal, were loaded by machinery as compared with 1,101,000 tons or 9.8 per cent. in 1939 and 3,089,000 tons (32.9 per cent.) in 1949. Similar details for other States are not available but machinery is used to a considerable extent in Western Australian mines and to a lesser extent in Queensland.

11. **Production of Black Coal per Man-shift.**—(i) *Underground Mines.* The following table shows particulars of estimated black coal output per man-shift worked, (a) at the coal face, and (b) by all employees, in respect of underground mines for each State concerned and for Australia for the years 1954 to 1958. These estimates have been calculated by the Joint Coal Board from data collected fortnightly in respect of coal production and the number of man-shifts actually worked. In South Australia, black coal is won only by open-cut mining.

PRODUCTION OF BLACK COAL PER MAN-SHIFT: UNDERGROUND MINES.
(Tons.)

Year.	N.S.W.	Vic.	Q'land.	W. Aust.	Tas.	Australia.
PRODUCTION PER MAN-SHIFT WORKED AT COAL FACE.						
1954	10.16	2.03	6.54	4.82	5.95	8.81
1955	10.76	2.13	6.61	4.74	6.54	9.24
1956	11.43	2.05	6.79	5.14	7.04	9.77
1957	13.19	2.01	7.13	5.88	7.60	11.02
1958	14.48	2.04	7.28	6.67	8.01	11.96

PRODUCTION PER MAN-SHIFT WORKED BY ALL EMPLOYEES.

1954	3.25	0.82	2.61	1.91	3.07	3.00
1955	3.29	0.86	2.66	2.06	3.08	3.14
1956	3.55	0.83	2.65	2.35	3.41	3.28
1957	3.99	0.85	2.82	2.77	3.76	3.65
1958	4.35	0.89	2.90	3.02	3.91	3.95

(ii) *Opencut Mines.* In the next table, the Joint Coal Board's estimates of production of black coal per man-shift worked by all employees in opencut mines are shown for the years 1954 to 1958. There are no opencuts producing black coal in Victoria.

PRODUCTION OF BLACK COAL PER MAN-SHIFT: OPENCUT MINES.
(Tons.)

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1954	8.97	12.27	4.52	4.71	7.91	7.31
1955	9.18	11.42	6.02	5.77	7.78	8.11
1956	10.36	13.06	6.72	6.37	8.56	9.19
1957	11.11	12.17	9.89	6.04	7.68	10.25
1958	11.31	13.63	11.46	6.78	10.42	11.47

12. Joint Coal Board.—After the 1939–45 War, the Governments of the Commonwealth and New South Wales agreed to create jointly a coal authority with powers similar to, and in some respects wider than, those possessed under Commonwealth war-time legislation. Following this agreement, the Joint Coal Board was created and has functioned as from 1st March, 1947. Briefly, it is the responsibility of the Board to ensure that the coal of the State is conserved, developed, worked, distributed and used to the best advantage in the public interest, and to promote the welfare of the workers in the industry. Further details of the powers and functions of the Board are contained in earlier issues of the Official Year Book.

§ 14. Coke and Other By-products from Coal.

1. Coke.—The production of metallurgical coke in Australia was limited to about 250,000 tons per annum prior to the 1914–18 War. This was below local requirements and necessitated an annual import of about 27,000 tons. By 1920, production had risen to more than 500,000 tons, by 1938–39 to 1,164,873 tons, and in 1957–58 it reached the record level of 2,295,737 tons. Imports exceeded exports prior to 1952–53 but in 1952–53 and later years there has been a net export surplus. In 1958–59, exports amounted to 8,823 tons while imports were 6,845 tons. Most of the tonnage imported is petroleum coke for use in the production of aluminium.

In addition to metallurgical coke referred to above (which is produced by specialized coke works), considerable quantities of coke are produced in gas works as a by-product of the manufacture of gas. Production in gas works in 1958–59 was 815,464 tons. To date, there has been no production of petroleum coke at Australian oil refineries.

In order to avoid duplication with coal values, the figures for coke have not been included in the general tables of mineral production in the early part of this chapter.

In the following table, particulars of the production of coke in coke works and gas works in Australia are shown for the years 1954–55 to 1958–59. The figures exclude output of coke breeze, which amounted to 328,586 tons in 1957–58 and 435,450 tons in 1958–59.

COKE PRODUCTION: AUSTRALIA.

(Tons.)

Industry.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Coke Works	2,046,790	2,058,426	2,234,458	2,295,737	2,210,621
Gas Works	1,099,859	1,031,135	954,756	831,615	815,464
Total	3,146,649	3,089,561	3,189,214	3,127,352	3,026,085

2. Other By-products from Coal.—In addition to coke, other products are obtained from the treatment of coal by coke and gas works. Some of the main items produced, principally in coke and gas works, during 1958–59 (1957–58 in parentheses) were: crude tar, 49,708,000 gallons (50,429,000 gallons); refined tar 28,696,000 gallons (28,277,000 gallons); and ammonium sulphate 117,489 tons (118,732 tons).

§ 15. Mineral Oils.

In 1959, the search for oil continued throughout the Australian mainland and in Papua-New Guinea. While petroleum in commercial quantities has not yet been discovered, several interesting shows of gas and/or oil have been found.

In Papua, oil, gas and condensate were discovered in Puri No. 1. Subsequent tests indicated that no commercial production was obtainable. At Port Campbell in Victoria gas was discovered in a well drilled by Frome-Broken Hill Co. Pty. Ltd. and further testing is in progress to determine the potential of this discovery.

The Petroleum Search Subsidy Act 1957–58 continued to attract applications for subsidy of the drilling of stratigraphic test wells in areas not previously investigated. On 4th December, 1959, the Petroleum Search Subsidy Act 1959 received the Royal Assent. This

Act widens the scope of the original Act to include the grant of subsidy on approved geo-physical and bore-hole surveys and off-structure drilling. The response to this new Act indicates a continued upward trend in exploration.

Drilling programmes are being carried out in all States and Territories with the exception of Tasmania. The year 1959 saw the commencement of the first stratigraphic test well in the Northern Territory at Spirit Hill.

In the following table, details are given of the footage drilled in the search for oil in the Commonwealth of Australia and the Territory of Papua and New Guinea during the years 1955 to 1959.

FOOTAGE DRILLED IN THE SEARCH FOR OIL, STATES OF AUSTRALIA AND TERRITORIES OF PAPUA AND NEW GUINEA.(a)

State or Territory.	1955.	1956.	1957.	1958.	1959.
	feet.	feet.	feet.	feet.	feet.
New South Wales	9,338	4,608	8,729	16,357	17,422
Victoria	10,738	22,660	12,244	2,439	8,395
Queensland	58,668	92	15,343	5,081	30,328
South Australia	661	16,966	13,995	6,239	12,637
Western Australia	77,824	61,271	26,961	30,383	36,020
Northern Territory .. ..	..	..	..	..	2,458
Australia	157,229	105,597	77,272	60,499	107,260
Territories of Papua and New Guinea	10,205	17,500	25,636	29,350	13,389

(a) Source: Bureau of Mineral Resources, based on figures obtained from State and Territory Departments of Mines.

§ 16. Sulphur.

1. **Mine Production of Sulphur.**—There is no production of elemental sulphur (brimstone) in Australia but, although sulphur is itself non-metallic, considerable quantities are contained in certain metallic minerals produced.

It should be noted that large quantities of the lead and zinc concentrates produced are exported and the sulphur they contain is not available for utilization in Australia.

The following table shows the sulphur content of the metallic minerals produced during 1958 from which sulphur was subsequently recovered.

SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED, 1958.
(Tons.)

Mineral in which contained.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Lead concentrate..	49,559	..	..	324	2,056	51,939
Pyrite Concentrate	17,715	4,011	(a) 32,129	22,311	32,470	108,636
Zinc concentrate	130,462	(a) 10,636	..	..	19,878	160,976
Total ..	197,736	(b) 14,647	(a) 32,129	22,635	54,404	321,551

(a) Estimated. (b) Partly estimated.

The principal producing centres during 1958 were—

(i) *New South Wales.* All of the sulphur produced in New South Wales was contained in lead and zinc concentrates produced at Broken Hill and in lead, zinc and pyrite concentrates produced at Captain's Flat.

(ii) *Queensland.* In Queensland, sulphur was contained in zinc concentrate milled at Mt. Isa and in pyrite concentrate produced at Mt. Morgan. No sulphur was recovered in Australia from zinc concentrate produced in Queensland.

(iii) *South Australia.* A pyrite concentrate containing sulphur was produced from ore mined at Nairne, 22 miles east of Adelaide.

(iv) *Western Australia.* Marketable pyrite concentrates were produced at Norseman and at Kalgoorlie. Although both of these concentrates are auriferous, the gold was recovered only from that produced at Kalgoorlie. A small quantity of sulphur was contained in lead concentrates produced in the Northampton Mineral Field.

(v) *Tasmania.* A pyrite concentrate was recovered at Mt. Lyell after the prior separation of the copper sulphide mineral. Recoverable sulphur was also contained in lead and zinc concentrates milled at Rosebery, but only that contained in zinc concentrate was recovered in Australia.

The following table shows for the years 1954 to 1958 the sulphur content of minerals from which sulphur was subsequently recovered.

SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED.
(Tons.)

State.	1954.	1955.	1956.	1957.	1958.
New South Wales	127,648	140,120	187,087	207,604	197,736
Queensland (a)	53,309	47,515	15,103	24,544	14,647
South Australia (b) .. ..	..	13,790	31,248	32,721	32,129
Western Australia	24,458	23,892	25,295	25,420	22,635
Tasmania	44,249	38,243	46,455	51,154	54,404
Australia	249,664	263,560	305,188	341,443	321,551

(a) Partly estimated. (b) Estimated.

2. **Production of Sulphuric Acid.** The principal use of sulphur is in the manufacture of sulphuric acid which is produced in all States and in the Northern Territory. Most of this is used for fertilizer manufacture although small quantities are used in the rubber and chemical industries and in the preparation of uranium concentrates. Sulphur contained in lead concentrate is used for acid manufacture at Port Pirie and sulphur in zinc concentrates is used at Risdon. Pyrite concentrate is used as a source of sulphur for acid manufacture at Cockle Creek, near Newcastle, and at Port Kembla in New South Wales, and at Melbourne, Brisbane, Adelaide, Perth and Fremantle. However, half of the sulphuric acid produced in Australia is made from imported elemental sulphur. The next table shows the Australian production of sulphuric acid and the quantity of sulphur in the acid produced from various sources.

SULPHUR USED IN SULPHURIC ACID PRODUCTION: AUSTRALIA.
(Tons.)

Item.	1954.	1955.	1956.	1957.	1958.
<i>Production of Sulphuric Acid (Mono.)</i>	<i>778,008</i>	<i>895,765</i>	<i>841,225</i>	<i>971,976</i>	<i>1,009,064</i>
<i>Sulphur in Sulphuric Acid (Mono.) produced from— ..</i>					
Sulphur (Elemental)(a) ..	154,337	187,015	146,816	156,413	162,881
Zinc concentrate	33,564	30,412	29,061	35,025	38,524
Lead concentrate .. ..	..	..	16,090	18,272	21,339
Pyrite	62,533	71,179	76,780	100,111	99,216
Spent Oxide	3,973	4,295	4,643	4,744	4,301
Other Materials .. ..	..	..	1,694	3,271	3,702
Total Sulphur Content ..	254,407	292,901	275,084	317,836	329,963

(a) All imported.

§ 17. Non-metallic Minerals.

1. **Asbestos.**—The production of asbestos in Australia at present is only sufficient to meet about one-sixth of domestic requirements. Production in recent years has been of two types, chrysotile (white) and crocidolite (blue). The deposits of chrysotile, however, are relatively small and widely scattered, and during 1958, it was produced mainly at Nunyerry and Lionel in Western Australia and at Baryulgil in New South Wales. Production of crocidolite, which is confined to the Hammersley Ranges in Western Australia, about 200 miles south-east of Roebourne, has expanded greatly in recent years. Large scale operations were commenced there in 1943 at Wittenoom Gorge by Australian Blue Asbestos Ltd., and reserves in seams over which the company holds leases are estimated at two million tons.

The production of chrysotile and crocidolite in Australia during the five years 1954 to 1958 is shown in the following table:—

PRODUCTION OF ASBESTOS : STATES.
(Short Tons of 2,000 lb.)

Year.	Chrysotile.			Crocidolite.	
	New South Wales.	Western Australia.	Australia.	Western Australia.	Australia.
1954	690	339	1,029	4,249	4,249
1955	661	308	969	5,025	5,025
1956	697	852	1,549	8,160	8,160
1957	676	1,556	2,232	12,438	12,438
1958	712	1,543	2,255	13,313	13,313

2. **Clays.**—Statistics of clay production in Australia are not entirely satisfactory, mainly because of differences between States in the classification of the various types of clays. In addition, the statistics are somewhat incomplete as some clays are outside the normal administrative control of some State Mines Departments. In the following table, the recorded production of the main types of clays produced in each State of Australia is shown for the year 1958.

PRODUCTION OF CLAYS : STATES, 1958.
(Tons.)

Type.	New South Wales.	Victoria.	Queensland	South Australia.	Western Australia.	Tasmania.	Australia.
Bentonite and Bentonitic Clay ..	30	..	86	..	37	..	153
Brick Clay and Shale ..	1,662,832	1,030,771	223,738	373,094	(a)394,010	144,818	3,829,263
Cement Clay and Shale ..	126,668	..	..	9,571	13,506	14,063	163,808
Damouritic Clay ..	..	..	..	482	..	..	482
Fireclay, n.e.i. ..	87,763	28,205	7,161	16,967	20,212	..	160,308
Fuller's Earth ..	120	..	..	4,803	..	..	120
Kaolin ..	23,216	5,631	68	..	79	3,302	37,099
Stoneware Clay ..	87,975	..	91	31,614	..	..	119,680
Tile Clay ..	137,679	(b)	(b)	(b)	(b)	6,101	(c) 143,780
Other Clays ..	10,072	136,125	(b)	(b)	(b)	3,254	(c) 149,451

(a) Estimated.

(b) Not available.

(c) Incomplete.

3. **Gypsum.**—There are very extensive deposits of gypsum in Australia, but only the more accessible and easily worked deposits have been exploited. These deposits lie in four main regions, (a) in New South Wales stretching from around Griffith to near Broken Hill, (b) in the north-west corner of Victoria, the south-west corner of New South Wales and adjoining parts of South Australia, (c) in South Australia on both sides of St. Vincent Gulf and extending to Lake MacDonnell in the west, and (d) between Perth and Kalgoorlie in Western Australia. The South Australian deposits are the most important and more than half of the total Australian production of gypsum in 1958 came from that State, where the main centres of production are Stenhouse Bay on Yorke Peninsula and Lake MacDonnell.

The building industry is the main user of the gypsum produced in Australia. The greatest part is used in the manufacture of plaster and most of the remainder in cement manufacture. A small amount is also used as fertilizer. A considerable quantity is exported, mainly to New Zealand for use in the plaster industry, and to New Caledonia for use in nickel smelting operations.

The production of gypsum in Australia is set out in the following table for the five years 1954 to 1958.

PRODUCTION OF GYPSUM : STATES.

(Tons.)

Year.	New South Wales.	Victoria.	South Australia.	Western Australia.	Australia.
1954	128,790	75,012	194,772	41,142	439,716
1955	136,356	89,190	204,522	39,946	470,014
1956	94,203	78,895	263,136	27,121	463,355
1957	101,491	68,647	274,945	33,353	478,436
1958	90,664	72,010	306,749	35,515	504,938

4. **Limestone.**—Limestone is quarried in all States, being used mainly for the manufacture of cement. Other uses are in agriculture, the steel industry, as a metallurgical flux, and in the chemical industry.

The recorded statistics of limestone production in each State of Australia for the years 1955 to 1958 are shown in the following table. Details of limestone produced for use as building or road material are not included.

PRODUCTION OF LIMESTONE(a) : STATES.

('000 Tons.)

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1955 ..	1,690	714	(b)	987	(b)	206	3,998
1956 ..	1,700	814	(b)	1,076	(b)	179	4,264
1957 ..	1,897	846	(b)	1,135	(b)	205	4,572
1958 ..	2,061	859	(b)	1,386	(b)	235	5,490

(a) Includes shell and coral.

(b) Not available for publication, included in total for Australia.

5. **Magnesite.**—The major sources of magnesite at present are deposits at Fifield and Thuddungra in central New South Wales. Most of the output of magnesite in Australia is used for refractory purposes, particularly in the steel industry, and small amounts are used in chemical, paper, glass, rubber, and ceramic industries. Particulars of the production of magnesite in each State for the years 1954 to 1958, are set out in the table below.

PRODUCTION OF MAGNESITE : STATES.

(Tons.)

Year.	New South Wales.	Queensland.	South Australia.	Western Australia.	Australia.
1954	42,825	..	235	92	43,152
1955	57,262	..	412	..	57,674
1956	63,050	..	831	804	64,685
1957	83,271	..	202	..	83,473
1958	69,030	20	341	..	69,391

6. *Mica*.—Almost all Australian production of muscovite mica comes from the Northern Territory, though small quantities of inferior grades have been obtained from most of the States. The centre of mica production in the Northern Territory is the Harts Range area about 130 miles north-east of Alice Springs, where mining has been carried on intermittently since 1892, and the Plenty River field, 50 miles north-east of Harts Range.

The Commonwealth Mica Pool, details of which are given in § 19.2 on page 1094, purchases all mica which is in accordance with certain specifications. The following table shows the quantity of muscovite mica produced in Australia during the five years 1954 to 1958.

MUSCOVITE MICA PRODUCTION.
(lb.)

Particulars.	1954.	1955.	1956.	1957.	1958.
New South Wales—					
Scrap	15,680	20,160	..	..	15,680
Queensland—					
Scrap .. .. .	..	..	..	..	21,728
Northern Territory—					
Trimmed	84,619	56,649	28,837	36,713	31,391
Crude and Film ..	..	..	..	..	35,840
Scrap	65,184	..	..	40,600	11,088

7. *Salt*.—Salt is obtained in Australia by evaporation of saline lakes and clay pans. Production satisfies local requirements and provides a considerable surplus for export. Recorded production in South Australia (the chief producing State) is shown in the following table for the years 1954 to 1958. Estimates of total Australian production are also shown.

SALT PRODUCTION.
(‘000 Tons.)

Particulars.	1954.	1955.	1956.	1957.	1958.
South Australia	304	291	332	339	336
Estimated Australian Total ..	379	369	409	428	430

8. *Other Non-metallic Minerals*.—(i) *General*. Many other non-metallic minerals are produced in Australia in considerable quantities, and are listed separately in the following paragraphs.

(ii) *Barite*. The principal centre producing first-grade quality barite is at Oraparinna in the North Flinders Range in South Australia. The production of barite in Australia during 1958 was 6,802 tons, of which 3,991 tons came from New South Wales, and 2,811 tons from South Australia.

(iii) *Diatomite*. Production of diatomite is carried on mainly in the eastern States of Australia. In 1958, 4,240 tons were produced, and of this total, New South Wales produced 3,100 tons.

(iv) *Dolomite*. Up to 1950, New South Wales was the main producer of dolomite, but in that year the Broken Hill Pty. Co. Ltd. opened up a large deposit of dolomite at Ardrossan in South Australia which now produces over 90 per cent. of the total output. In 1958, New South Wales produced 3,957 tons; Queensland, 2,779 tons; South Australia, 148,631 tons; Western Australia, 196 tons; and Tasmania, 2,585 tons, making an Australian total of 158,148 tons.

(v) *Felspar*. The main demand for felspar comes from the glass and ceramic industries. Most of the Australian production of felspar comes from New South Wales which produced 5,302 tons of the Australian total of 7,016 tons in 1958. Of the remainder, 1,033 tons came from South Australia and 681 tons from Western Australia.

(vi) *Gemstones.* (a) *Diamonds.* Gem quality diamonds are not produced in Australia but, in 1958, 158 carats of industrial diamonds valued at £2,000 were recovered during gold dredging operations on the Macquarie River in New South Wales.

(b) *Opals.* Most of the opals won in recent years came from the Coober Pedy and Andamooka fields in South Australia which produced opals worth £190,000 in 1958. Other production in 1958 was from Lightning Ridge in New South Wales, valued at £25,000, and the Quilpie district in Queensland, valued at £1,000.

(c) *Sapphires.* In 1958, sapphires produced in the Inverell District of New South Wales were valued at £1,000 and production from the Anakie Field in Central Queensland was also valued at £1,000.

(vii) *Silica.* The production of silica is not recorded in Victoria while production recorded in all other States may not be complete. The output of silica, which includes glass sand, quartz, quartzite, sand, sandstone, and silicious abrasives, but does not include production for use as building or road material, was 120,502 tons in New South Wales; 4,280 tons from Queensland; 7,552 tons in South Australia; 6,510 tons in Western Australia; and 6,639 tons in Tasmania, giving a total of 145,483 tons for those States during 1958.

(viii) *Sillimanite.* In 1958, 1,696 tons of sillimanite were produced in Australia. New South Wales contributed 863 tons and the remaining 833 tons came from South Australia.

(ix) *Talc.* The Australian output of talc (including steatite), was 15,393 tons in 1958. New South Wales produced 998 tons, South Australia 11,894 tons and Western Australia 2,501 tons.

(x) *Other.* Other non-metallic minerals produced in Australia in small quantities during 1958 were fluorite, garnet concentrate, glauconite, loam, mineral pigments, pebbles for grinding, perlite, petalite, phosphate rock, pyrophyllite, serpentine and slate.

§ 18. Oversea Trade in Minerals and Mineral Products.

Particulars of the quantity and value of the principal mineral and mineral product items imported into and exported from Australia during the years 1956, 1957 and 1958 are shown in the following table.

IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS: AUSTRALIA.

Item.	Unit of Quantity.	Quantity.			Value. (£A'000 Port of Shipment).		
		1956.	1957.	1958.	1956.	1957.	1958.
IMPORTS.							
Aluminium, Refined—							
Ingots	ton	10,223	8,374	14,813	2,696	2,199	3,356
Plates, Sheets and Strips	"	2,276	1,881	2,317	1,038	907	1,026
Foil	"	1,938	2,193	2,409	1,206	1,512	1,711
Asbestos	short ton	29,578	33,888	38,888	1,842	2,377	2,493
Gold, Unrefined Bullion	fine oz.	201,871	159,998	160,232	3,182	2,479	2,502
Iron and Steel—							
Bars and Rods	ton	55,890	17,860	24,798	4,518	2,394	2,750
Ferro-alloys	"	15,137	14,579	13,335	1,693	2,061	1,486
Plate and Sheet (Plain)	"	37,808	15,404	15,918	4,970	2,860	3,354
Tinplate	"	120,917	144,199	66,059	11,656	14,991	6,699
Petroleum Oils—							
Crude	'000 gals.	1,789,828	2,118,179	2,441,916	45,516	57,574	67,778
Enriched Crude	"	198,822	142,908	95,302	7,226	6,156	,079
Kerosene	"	135,755	112,789	97,403	7,107	6,280	337
Lubricating Oil	"	42,751	40,165	41,665	6,070	5,831	5,759
Spirit	"	327,007	183,132	207,500	20,515	11,940	12,565
Phosphate Rock	'000 tons	1,332	1,035	1,501	2,770	2,622	3,894
Sulphur	ton	202,977	120,277	202,421	2,620	1,459	2,254
Titanium Oxide	"	8,177	6,172	6,996	1,936	1,383	1,482

IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS: AUSTRALIA—*continued.*

Item.	Unit of Quantity.	Quantity.			Value. (£A'000 Port of Shipment).		
		1956.	1957.	1958.	1956.	1957.	1958.

EXPORTS.

Asbestos	short ton	7,720	11,329	10,433	721	1,212	933
Coal	ton	239,379	759,095	823,925	944	3,056	3,408
Copper, Blister .. ..	..	15,574	19,131	14,471	5,792	5,004	3,156
Gold, Refined	fine oz.	530,968	783,814	128,550	8,331	12,275	2,111
Iron and Steel—							
Bars and Rods	ton	16,842	21,595	28,588	906	1,094	1,420
Plate and Sheet, Plain .. ..	..	61,070	143,629	85,444	3,430	8,008	5,169
Plate and Sheet, Galvanized .. ..	..	38,484	86,378	58,938	3,324	6,961	4,911
Scrap .. ..	..	105,123	178,255	156,978	2,347	5,010	2,800
Lead—							
Ore and Concentrate .. ..	..	77,362	91,236	83,984	5,454	5,813	4,776
Lead-Silver Bullion .. ..	..	38,190	47,618	58,068	6,081	7,085	6,104
Pig .. ..	..	149,061	160,589	155,730	20,897	19,368	13,729
Petroleum Oils—							
Spirit	'000 gals.	19,829	36,133	80,171	1,271	2,857	4,814
Diesel Oil .. ..	..	2,693	21,294	43,081	171	1,465	2,511
Residual and Furnace Oil .. ..	..	147,872	156,027	202,052	6,702	8,258	9,131
Rutile Concentrate	ton	89,887	119,052	75,615	6,598	8,617	4,630
Silver, Refined	'000 fine oz.	16,444	3,672	4,876	5,511	1,505	1,911
Zinc—							
Ore and Concentrate	ton	267,402	323,654	261,279	4,668	5,201	2,749
Refinery Type Shapes .. ..	..	31,594	37,092	37,938	3,802	4,033	3,165

Considerable quantities of metallic ores, concentrates, slags and residues are exported from Australia for refining overseas. The following table shows the quantities of such items exported during 1958 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SPECIFIED ORES AND CONCENTRATES, ETC., EXPORTED FROM AUSTRALIA DURING 1958.

Ores and Concentrates, etc.	Quantity Exported. ton.	Metallic Contents—Estimated from Assay.						
		Copper. ton.	Gold. fine oz.	Lead. ton.	Silver. fine oz.	Tin. ton.	Tungstic Oxide. ton.	Zinc. ton.
Copper—								
Ore and Concentrate	14,951	3,767	4,416	..	123,085	..	..	..
Copper—Lead Dross and Speiss	7,709	1,856	74	3,904	358,742	3	..	..
Other Slags and Residues	1,332	179	..	..	39,760	..	..	..
Blister	14,471	14,297	..	..	108,000	..	..	..
Lead—								
Ore and Concentrate	83,984	1,470	17,963	55,287	1,964,187	..	..	6,156
Slags and Residues	2,604	..	..	1,437	192	9	..	..
Lead-Silver Bullion	58,068	..	..	57,661	4,696,063	..	..	..
Tin Ore and Concentrate	25	..	..	..	..	17	..	..
Tungsten—								
Scheelite Ore and Concentrate	506	..	..	..	..	..	341	..
Wolfram Ore and Concentrate	442	..	..	..	..	..	319	..
Zinc—								
Ore and Concentrate	261,279	..	..	3,978	77,777	..	..	137,323
Slags and Residues	3,476	..	..	..	..	..	..	2,755
Total Metallic Contents .. ..	..	21,569	22,453	122,267	7,367,806	29	660	146,234

§ 19. Government Aid to Mining, and Mineral Control.

1. *Aid to Mining.*—(i) *Commonwealth.* (a) *Assistance to the Gold Mining Industry.* For particulars of the subsidy paid to gold producers in Australia, see para. 9, page 1058.

(b) *Rewards for Discovery of Uranium Ore.* To encourage the search for and discovery of deposits of uranium ore, the Commonwealth Government approved the granting of monetary rewards up to a maximum of £25,000 for any one deposit.

(c) *Copper Bounty.* For particulars of the bounty paid on copper sold on the Australian market, see para. 8, page 1067.

(d) *Bureau of Mineral Resources, Geology and Geophysics.* The Bureau of Mineral Resources, Geology and Geophysics has sections dealing with geology, geophysics, mining engineering, petroleum technology and mineral economics. The geological section provides geologists to conduct all surveys required in Commonwealth Territories and makes detailed and regional surveys in conjunction with or by arrangement with the State Mines Departments, surveys of possible oil-fields in Australia and New Guinea, surveys of mines for which financial assistance is sought, and investigations of deposits of radio-active minerals. The geophysical section conducts investigations throughout Australia and New Guinea connected with the search for metalliferous radio-active and other mineral deposits; investigations connected with exploration for coal, oil and water; regional magnetic and gravity surveys; engineering and military geophysics; and the operation of geophysical (magnetic and seismic) observatories. The Bureau works in close co-operation with the Mines Departments of the States. It has assumed full responsibility for geological and geophysical surveys in Commonwealth Territories, but suitable arrangements have been made to ensure that the local Administrations have the necessary technical advice directly available to them.

(e) *Diamond Drilling.* The drilling plant operated by the Bureau of Mineral Resources consists of two medium and five light prospecting drills. These drills are used mainly in connexion with the Bureau's comprehensive programme of prospecting by aerial, geological, geophysical and geochemical methods.

(f) *Search for Oil.* No variation has been made in the policy described in Official Year Book No. 37, page 850, regarding the search for petroleum throughout Australia and its Territories. In addition to its activities set out in that Year Book, the Bureau of Mineral Resources, Geology and Geophysics in Canberra tests bore cores for density, porosity, permeability and fluid content on behalf of companies engaged in drilling for oil. The Bureau also maintains three portable rotary plants for scout boring for geological information.

The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea; details of the efforts made are outlined in earlier issues of the Official Year Book and in § 15, Mineral Oils (p. 1084).

(g) *Ore-dressing and Mineragraphic Investigations.* These investigations are conducted by the Commonwealth Scientific and Industrial Research Organization as required by the industry. Ore-dressing investigations are carried out at the Ore-Dressing Laboratory, situated in the Department of Mining, University of Melbourne, and at the Ore-Dressing Laboratory, Kalgoorlie, situated at the School of Mines. The Mineragraphic Investigations Section is located in the Geology Department, University of Melbourne.

These two groups of laboratories perform complementary services—The Mineragraphic Investigations Section assesses microscopically the state of dispersion and the mineral association of ore bodies while the Ore-Dressing Laboratories investigate the composition of ores and provide advice on suitable methods for their full-scale treatment. Much of this research is carried out on a co-operative research basis with the mining industry.

(ii) *States.* (a) *General.* In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

(b) *New South Wales.* State aid to assist metalliferous mining may consist of grants to assist the prospecting and/or mining for gold and minerals and for the purchase, removal and installation of mining plant or equipment.

(c) *Victoria.* Loans may be granted to assist prospecting and development or the purchase of machinery. The Mines Department has stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities. Drilling with diamond, rotary and percussion drills is carried out by the Mines Department for mining companies and for general mineral exploration. A survey of the State's underground water reserves is in progress, in conjunction with the opening up of town water supplies from underground sources for which new deep-drilling equipment has been obtained.

(d) *Queensland.* Various forms of assistance to mining are made available by the Queensland Department of Development and Mines. Grants are made from the Consolidated Revenue Fund for use on construction and maintenance of roads in mining areas. Advances are made from the Gold Mining Encouragement Fund for mining development work. This assistance is restricted to gold mines and advances are repayable from proceeds of the mine, if any. From the Assistance to Metalliferous Mining Fund, plant, such as jackhammers, compressors and pumps, is purchased and maintained. Such plant is made available on hire, the rental payments being credited back to the fund. Prospecting assistance is made available in approved cases, the rates being £2 10s. per week for a single man and £3 10s. per week for a married man with dependants. This is not repayable. From the Advances to Mining Fund, assistance by way of subsidy is advanced for mine development. Such is repayable from proceeds of the mine. The Department also maintains a treatment works for tin ores, etc., at Irvinebank, an assay office at Cloncurry, and diamond-drilling plants in several parts of the State. The Venus State mill at Charters Towers is available for the treatment of gold-bearing ores.

(e) *South Australia.* The Department of Mines provides the following services and facilities to the mineral industry:—(i) Hire of boring plant and mining equipment; boring and testing of mineral deposits; financial subsidies in approved cases for prospecting and mining development; development of sub-surface water supplies for farming, pastoral, irrigation and mining purposes; purchase of basic metal ores from prospectors. (ii) Geological examination of mineral deposits, water supply, dam foundation and drainage problems; guidance on mining legislation; publication and issue of geological bulletins and maps. Through the Australian Mineral Development Laboratories, chemical and metallurgical analytical and assay investigations; testing and treatment of ores and minerals; petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

(f) *Western Australia.* Assistance is given to prospectors to the extent of £5 a week south of the 26th parallel of latitude, and of £6 a week north of that parallel; also provision is made of some tools required for prospecting.

There are twenty State batteries operating throughout the gold-fields for the treatment of ore from prospectors and small mine-owners, at a nominal charge. A cartage subsidy is also granted to such operators sending ore to State batteries for treatment.

Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a £1 for £1 basis.

(g) *Tasmania.* The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or dewatering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry by geological and engineering advice and through ore-dressing research into metallurgical recoveries and the selection and design of treatment plant.

(h) *Northern Territory.* In order to encourage the development of the mining industry, the Northern Territory Administration has erected Government batteries at Tennant Creek, Hatches Creek, and Maranboy for the treatment of miners' ores. The Tennant Creek battery is the only one now in operation. After reconstruction, it was re-opened for public crushing in October, 1958, and has been fully employed since that date. The re-opening of the Hatches Creek and Maranboy batteries will depend on the revival of small scale wolfram and tin mining, respectively, in these areas. The crushing charges are subsidized by Government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out developmental work. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

2. **Control of Minerals.**—(i) *Mica Production.* The Commonwealth Mica Pool purchases mica won in the Harts Range and Plenty River mica fields, Northern Territory, thus ensuring the miners a ready market for their output at fixed prices and also permitting an orderly distribution of mica to the trade. The Pool is controlled by a Committee of Management consisting of representatives of the Commonwealth Government, producers and consumers.

(ii) *Control of Exports of Metals and Minerals.* Certain metals and minerals produced in Australia are subject to export control for one or more of the following reasons:—

- (a) the necessity of conserving resources;
- (b) the inadequacy of local production to fulfil domestic demand;
- (c) the strategic importance of the minerals.

Minerals and metals subject to export control include iron ore; manganese ore; beryllium ores, concentrates and metal; monazite; uranium ore, concentrates, residuals and metal. Mixed concentrates of beach sand minerals are prohibited exports but the major constituent minerals (rutile, zircon and ilmenite) may be exported.

(iii) *Radio-active Minerals.* Since the discovery of the possibility of using atomic energy, considerable attention has been paid to the occurrence of uranium in Australia. To encourage the search for and discovery of deposits of uranium ore, the Commonwealth Government grants monetary rewards for such discoveries.

The Bureau of Mineral Resources is carrying out ground and airborne geophysical surveys and geological surveys and diamond drilling operations, with a view to discovering further deposits and to assessing the value of known deposits.

During 1953, Commonwealth Legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilization of uranium in Australia. This Act, the Atomic Energy Act of 1953, supersedes the Atomic Energy (Control of Materials) Act of 1946, but retains a provision of that Act which provides for control of substances which could be used for production or use of atomic energy. It gives the Commonwealth power to acquire such substances in their natural state and in waste materials from mining operations, to carry on mining and other operations necessary for the recovery of such substances, and to pay compensation for such acquisition. It also gives the Commonwealth power to obtain possession of such substances held by any person.

Further reference to the Atomic Energy Commission appears in Chapter XXX.—Miscellaneous.

CHAPTER XXVIII.

DEFENCE.

§ 1. Department of Defence.

1. **Functions and Organization.**—(i) *Functions.* Subject to the authority of Cabinet, the Minister and Department of Defence are responsible for:—

- (1) The formulation and general application of a unified defence policy relating to the Defence Forces and their requirements, including:—(a) co-operation in British Commonwealth and regional defence and the defence aspect of the Charter of the United Nations; (b) the supply aspect of defence policy, including the review of production programmes and capacity; (c) the scientific aspect of defence policy; and (d) the financial requirements of defence policy, and the allocation of funds made available.
- (2) The defence aspect of armistice and peace terms, control commissions, and forces of occupation.
- (3) Matters of policy or principle and important questions having a joint Service or inter-departmental defence aspect.
- (4) The defence aspect of questions relating to the organization and machinery for:—(a) co-operation in British Commonwealth defence; (b) co-operation in regional security, including obligations under the United Nations Charter; (c) higher direction in war; and (d) higher direction of the Services.
- (5) The Commonwealth War Book, which is a summary of national plans for an emergency as developed in departmental war books.
- (6) The administration of inter-Service organizations, such as the joint intelligence machinery.
- (7) The defence aspect of:—the strength and organization of the forces, higher appointments in the Services, honours and awards.
- (8) Advice on the military aspect of civil defence.

(ii) *Organization, higher defence machinery and the control of the joint Service machinery.* The joint Service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee, the Defence Administration Committee and the Joint War Production Committee.

The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, who is Chairman of the Chiefs of Staff Committee, the Chiefs of Staff of the three Services, the Secretary, Prime Minister's Department, the Secretary, Department of External Affairs, and the Secretary to the Treasury. Its function is to advise the Minister for Defence on—

- (a) The defence policy as a whole and also to co-ordinate military, strategic, economic, financial and external affairs aspects in framing defence programmes.
- (b) Matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect.
- (c) Such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The Chiefs of Staff Committee meets regularly for the discussion of technical matters on a joint service basis, and is responsible in peace for the preparation of strategic appreciations and military plans. The functions of the Defence Administration Committee, in addition to the regular review of the progress of the Defence Programme, relate to the co-ordination and integration of Service activities and the improvement of methods and organization. The function of the Joint War Production Committee is, briefly, to examine the relation between strategic plans and their requirements to ensure that the war potential for them exists. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee comprise the Principal Administrative Officers Committee (Maintenance and *Matériel*), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee and the Joint Administrative Planning Committee.

(iii) *Defence Business Board.* The Defence Business Board furnishes advice on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity and consists of an independent chairman and deputy chairman and the business advisers of the three Service Departments.

2. Basis of Current Defence Policy.—The main strategic factors affecting current defence policy may be summarized as follows:—

(i) Because of the nuclear deterrent, the outbreak of limited or local wars is more likely than a global or full-scale war.

(ii) In any likely war in the foreseeable future, Australia's interests will most likely be centred in South East Asia, which is its first line of defence.

(iii) The defence of South East Asia and Australia is to be sought through the concept of collective security. Australia attaches the greatest importance in defence policy and planning to participation in the collective defence arrangements developed in its area of strategic interest—SEATO, ANZUS and British Commonwealth arrangements for defence co-operation. Such arrangements are entirely in accord with the United Nations Charter.

3. The Defence Programme.—(i) *Programme.* The level of national defences must be adequate to enable Australia to meet her regional and home defence responsibilities. The proportion of national resources that can be allotted to defence is, however, affected by the concurrent demands of the programmes of national development, industrial expansion and migration, which add to our basic defence capacity. A comprehensive review of defence policy was undertaken in 1959, and a new three year defence programme to June, 1962, was approved. The new programme is designed to meet present strategic requirements and has, as its primary aim, the continual improvement of the ability of the Australian forces to act swiftly and effectively, in co-operation with allied forces, to meet limited or local war situations. Emphasis is placed in the new programme on two major points: First, to have the forces, both regular and citizen, more readily available than they have been in the past; secondly, to provide them with modern equipment, in greater quantity and more varied type. Equipment used by the Australian forces will be standard or compatible, as far as possible, with that used by United States forces, with whom they are associated in defence arrangements.

Australia has a modern and efficient Naval Force in which special emphasis is being placed on anti-submarine capabilities. The naval construction programme of four new type anti-submarine frigates is being continued, and possible new naval projects are being further examined. The operational fleet comprises an aircraft carrier, three Daring class ships, three fast anti-submarine frigates, training and survey ships and miscellaneous small craft.

Important decisions have been taken on Army organization which will improve considerably the availability and operational effectiveness of the Australian Army, both regular and citizen forces. The Army is to be composed entirely of volunteers, and the combat elements will be based on the new pentropic division, which will give greater flexibility and mobility to meet modern war conditions in tropical areas. There will be two divisions of five battle groups each, comprising two regular and eight Citizen Military Force battle groups, in addition to the regular battalion group in Malaya. Some £30 million is being provided in the programme for modern Army equipment, including the F.N. rifle, the United States 105 mm. howitzer, a general purpose machine gun and a new recoilless rifle. Other modern weapons and armoured vehicles are to be obtained, and provision is made to increase the mobility of the Army with light aircraft support (both fixed and rotary wing) and amphibious and water craft.

The R.A.A.F. has 12 operational squadrons, and the fighter squadrons are being re-armed with the Sidewinder air-to-air missile. The maritime element will be greatly strengthened by the acquisition of 12 P.2.V.7 Neptune aircraft, and the British Bloodhound surface-to-air guided weapons system will be purchased. Helicopters will be obtained for joint Army and Air Force use, and provision is also made for commencement in the programme period of the acquisition of a new fighter aircraft.

In the field of research and development, Australia is making its principal contribution through the Long Range Weapons Establishment which is a joint United Kingdom—Australian effort for the testing of guided weapons. The executive authority for this project is the Department of Supply which is also responsible for the provision of the material requirements of the forces including the manufacture and supply of munitions and aircraft.

The estimated cost of the defence programme for 1959–60 was £192.8 million.

(ii) *Financial.* Details of defence expenditure for 1958-59 and the allocation of the Defence Vote for 1959-60 are set out in the two tables which follow:—

ALLOCATION OF DEFENCE VOTE OF £192,800,000 FOR 1959-60.
(£'000.)

Service or Department.	Maintenance.	Capital Material Requirements, Machinery, Plant and Equipment.	Capital Buildings, Works and Acquisition of Sites.	Total Expenditure.
Defence	1,194	42	22]	1,258
Navy	33,030	7,986	1,596	42,612
Army	52,740	8,894	3,920	65,554
Air	42,283	13,398	4,480	60,161
Supply	13,862	2,395	4,729	20,986
Other Services	1,435	84	710	2,229
Total	144,544	32,799	15,457	192,800

DEFENCE EXPENDITURE, 1958-59.
(£'000.)

Service or Department.	Maintenance.	Capital Material Requirements, Machinery, Plant and Equipment.	Capital Buildings, Works and Acquisition of Sites.	Total Expenditure.
Defence	963	14	30	1,007
Navy	32,289	7,670	1,472	41,431
Army	49,479	11,878	3,954	65,311
Air	41,764	13,127	4,632	59,523
Supply	14,569	2,373	4,019	20,961
Other Services	861	2	212	1,075
Total	139,925	35,064	14,319	189,308

(iii) *Personnel Strengths.* The personnel strengths of the Services at 31st December 1959 were:—

Category.	Navy.	Army.	Air Force.	Total.
Permanent Forces	(a) 10,578	21,843	15,320	47,741
Citizen Forces—				
Volunteers	(b) 7,670	21,923	880	30,473
National Service Personnel .. .. .	..	33,197	..	33,197
<i>Total Citizen Forces</i>	(b) 7,670	55,120	880	63,670
Total Permanent and Citizen Forces	18,248	76,963	16,200	111,411

(a) Excludes 16 cadet midshipmen not on pay. (b) Excludes 2,672 National Service Trainees who have completed training and are held on reserve and 162 nominal reservists.

4. *Australian Forces Serving in Malaya.*—Australia has participated with the United Kingdom and New Zealand in the Commonwealth Strategic Reserve in Malaya since it was first established in 1955. At the request of the Government of the Federation of Malaya, the Strategic Reserve continues to be stationed in that country and to assist in the campaign against the communist terrorists.

5. *National Service.*—The National Service training scheme came into active operation in May, 1951 but was suspended in November, 1959. Its principal features are given below.

The liability to register extended to virtually all male persons ordinarily resident in Australia who attained the age of 18 years on or after 1st November, 1950. The only persons exempt from this liability were members of the permanent forces, aboriginal natives of Australia, and certain diplomatic personnel and officials in the service of international bodies. In all, twenty successive age-groups were called upon to register, the first in May, 1951, and he last in July, 1959. When operations were suspended, a total of 527,224 young men had registered.

All persons registered or required to register incurred the liability to render service but after registration exemption could be granted to theological students, ministers of religion, members of religious orders, conscientious objectors and registrants suffering from certain prescribed physical or mental disabilities. Registrants not entitled to exemption remained liable for call-up in one of the three Services provided they attained the required standard of medical fitness. The actual training obligation was 140 days in the Citizen Military Forces but 154 days in the Citizen Naval Forces or the Citizen Air Force. In addition, trainees were required to remain members of the Citizen Forces, Military, Naval or Air as the case may be, for five years from the date of their enlistment.

Temporary deferment of call-up could be granted to students and apprentices so as to avoid undue interruption to their studies or trade training and to registrants able to establish before a court that the rendering of service would cause exceptional hardship to themselves, their parents or dependants. In 1955, provision was made to defer the call-up of registrants living outside approved C.M.F. training centres and of rural workers engaged permanently and full-time on a rural holding in the production of food or raw materials.

In 1957, a new selection procedure was introduced in the form of a ballot conducted for each new age-group called upon to register. Registrants selected by ballot remained available for call-up subject to medical fitness and the existing rules and procedures for exemption or deferment. Those not selected were granted indefinite deferment but were given the opportunity to volunteer for training and, if accepted as volunteers, were called up in the normal way. Training, hitherto given in all three Services, was restricted to the Army and the total annual intake was reduced from 34,000 to 12,000. The active Army training obligation remained at 140 days to be carried out in one continuous period of 77 days followed by 21 days part-time training in each of the ensuing three years. The requirement to remain on the reserve of the Citizen Military Forces for five years after enlistment remained unchanged.

In all 227,021 registrants were called up for training, 6,967 in the Navy, 22,267 in the Air Force and 197,787 in the Army.

Provision was made for protection in respect of civil employment, notably with regard to reinstatement in civilian employment after completing a period of training, of registrants called up for service.

§ 2. Naval Defence.

1. **Administration.**—The Royal Australian Navy is administered, under the Naval Defence Act 1910–1952, by the Naval Board, which consists of the Minister for the Navy, four Naval Members, and the Secretary, Department of the Navy.

2. **Historical.**—Prior to 1901, naval defence systems were organized under the State Governments. Information regarding these systems is given in Official Year Book No. 2, page 1084. An outline of the development of Australian Naval policy is given in Official Year Books No. 3, page 1060, and No. 12, page 1012. An account of the building of the Australian Navy, its cost, the compact with the Imperial Government, and other details appears in Official Year Book No. 15, pages 921–23. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Official Year Book No. 36, pages 1023–27.

3. **Link with the Royal Navy.**—Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty, and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London, and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy Officers.

4. **Strength of the Fleet.**—Ships in commission at June, 1960, were:—

H.M.A. Fleet.

- 1 Aircraft carrier.
- 3 Destroyers.
- 3 Fast Anti-submarine frigates.
- 5 Frigates.
- 7 Auxiliary vessels.

5. **Personnel.**—The authorized establishment strength of the Royal Australian Navy has been pegged at 12,800 comprising 1,430 officers and 11,370 ratings. At 31st December, 1959, the actual strength of the Naval Forces, permanent and reserves, serving full-time, was 1,251 officers and 9,008 ratings including 99 native ratings of the Papua and New Guinea Division of the Royal Australian Navy. 59 cadet midshipmen were undergoing training at the Naval College. 13 officers and 263 ratings were serving in the Women's Royal Australian Naval Service. Reserve strength comprised 1,178 officers and 9,326 ratings, serving part-time.

6. **Women's Royal Australian Naval Service.**—The established personnel strength of the W.R.A.N.S. is 14 officers and 370 ratings. They serve in the shore establishments in the following categories: Radio-operators, Regulating, Writers, Stores Assistants, Sick Berth Attendants, Motor Transport Drivers, Wrans (Radar Plot), Cooks and Stewards.

7. **Reserve Training.**—Members of the Royal Australian Naval Reserve carry out limited training at night or on Saturday afternoons, plus 13 days annual continuous training; engagements are for 3 years and pay is approximately that of the Permanent Naval Forces. Special courses and service of longer duration are available to selected members. The Royal Australian Fleet Reserve consists of former ratings of the R.A.N., R.N., or a Dominion Navy whose obligation to perform training is determined by the length of their permanent naval service.

8. **Fleet Air Arm.**—The Fleet Air Arm of the Royal Australian Navy maintains two front line squadrons, embarked in the operational carrier, H.M.A.S. *Melbourne*. This ship is fitted with an angled deck, steam catapult and mirror deck-landing sights. Training and support squadrons for H.M.A.S. *Melbourne's* Sea Venom jet all-weather fighter and ground attack aircraft and Gannet turbo-prop anti-submarine aircraft are based at the Naval Air Station H.M.A.S. *Albatross* at Nowra, New South Wales.

9. **Ship Construction and Repair.**—Provision is made for the maintenance in Australia of a ship construction and repair industry capable of rapid expansion in war. Under the present programme, two anti-submarine frigates are fitting out and two more of the same type are under construction.

Two general purpose vessels and one sea-air rescue craft are also under construction.

10. **Naval College.**—The Royal Australian Naval College, transferred from Jervis Bay, A.C.T., to Flinders Naval Depot in 1930, was re-established at Jervis Bay in January, 1958, and was commissioned as H.M.A.S. *Creswell*.

11. **Training Establishments.**—Flinders Naval Depot, at Crib Point, Westernport, Victoria, is the basic training establishment for ratings in the permanent forces, while several advanced training schools are established in Sydney, New South Wales. The Apprentice Training Establishment at Quaker's Hill, New South Wales, provides secondary education as well as training in trades in which the lads will be employed during their service in the Royal Australian Navy. Introduction of junior recruits training will be effected at Fremantle, Western Australia, during the latter half of 1960. A large proportion of instructional hours will be devoted to school subjects, and the remaining instructional time to basic naval training and disciplinary training, so that on leaving the junior recruits training, ratings will be ready to undergo technical and specialist courses.

12. **The Australia Naval Station.**—Defined limits of the Australia Station are as follows:—

Eastern—

From 3° 30' North, 169° East, south to 1° South, thence east to 170° East, thence south along this meridian to 30° South, thence to 45° South, 160° East, thence south along this meridian.

Northern—

From 3° 30' North, 169° East, west to 125° East, thence south to the Coast of Celebes, thence west along the Coast of Celebes to 120° East, thence south along this meridian to 10° South, thence west to 78° East.

Western—

From 10° South, 78° East, south along this meridian.

13. *Ships Service Outside Australian Waters.*—During the year ended June, 1960, H.M.A. Ships *Melbourne*, *Anzac*, *Tobruk*, *Voyager*, *Quickmatch* and *Queenborough* served on the Far East Station as units of the Commonwealth Strategic Reserve with headquarters at Singapore. H.M.A. Ships *Vampire*, *Swan* and *Gascoyne* made visits beyond the limits of the Australia Station.

14. *Papua and New Guinea Division of the Royal Australian Navy.*—A Papua and New Guinea Division of the Royal Australian Navy, consisting of native ratings, was inaugurated in July, 1951, as a separate part of the Permanent Naval Forces for employment in Papua and New Guinea and adjacent waters.

15. *Ships of the Royal Australian Navy.*—The following ships were in commission or in reserve in June, 1960:—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, JUNE, 1960.

Vessel.	Description.	Displacement.
In Commission—		Tons.
<i>Melbourne</i>	Aircraft Carrier	15,680
<i>Vampire</i>	Destroyer	2,789
<i>Vendetta</i>	"	2,789
<i>Voyager</i>	"	2,801
<i>Queenborough</i>	Frigate	2,020
<i>Quiberon</i>	"	2,020
<i>Quickmatch</i>	"	2,020
<i>Diamantina</i> (Training)	"	1,489
<i>Gascoyne</i> (Training)	"	1,489
<i>Swan</i> (Cadets Training)	"	1,060
<i>Barcoo</i> (Survey)	"	1,477
<i>Warrego</i> (Survey)	"	1,060
In Reserve—		
<i>Sydney</i>	Aircraft Carrier	15,740
<i>Hobart</i>	Cruiser	7,100
<i>Anzac</i>	Destroyer	2,436
<i>Arunta</i>	"	2,012
<i>Tobruk</i>	"	2,436
<i>Warramunga</i>	"	2,012
<i>Barwon</i>	Frigate	1,489
<i>Burdekin</i>	"	1,489
<i>Condamine</i>	"	1,537
<i>Culgoa</i>	"	1,537
<i>Hawkesbury</i>	"	1,489
<i>Macquarie</i>	"	1,553
<i>Murchison</i>	"	1,537
<i>Quadrant</i>	"	2,020
<i>Shoalhaven</i>	"	1,537
<i>Cootamundra</i>	Ocean Minesweeper	768
<i>Wagga</i> (Training)	"	768
Under Dockyard Control—		
<i>Parramatta</i> (a)	Frigate (fitting out) .. ..	..
<i>Yarra</i> .. .. .	" .. ..	..
O 2	" (building) .. ..	..
O 5 .. .. .	" .. ..	..

(a) Commissions June, 1961.

§ 3. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to federation appears in Official Year Book No. 2, pages 1075-80. *See also* Official Year Book No. 12, page 999.

The strength of the military forces of the States at 31st December, 1900 (the eve of federation) was:—New South Wales, 9,338; Victoria, 6,335; Queensland, 4,028; South Australia, 2,932; Western Australia, 2,696; Tasmania, 2,024; total for Australia, 27,353. This total is exclusive of cadets, reservists and rifle club members.

2. *Commonwealth Systems.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in sixteen phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous army in 1902 up to the decision to increase the training strength of the militia to 70,000 in the year before the 1939-45 War (phases 1-7), *see* Official Year Book No. 36, and earlier issues.

Phases 8-10, covering the period immediately prior to, and just following, the outbreak of the 1939-45 War, relate to the initial steps necessary to put the Australian Military Forces on a war-time basis, and to its organization into commands.

The eleventh phase, in January, 1942 was the division of Northern, Eastern and Southern Commands into separate commands and base headquarters to handle operational and administrative matters respectively, and the twelfth phase was the revision of the machinery for command administration of lines of communication areas. The thirteenth phase was the appointment of Lieutenant-General Sir Iven Mackay as G.O.C.-in-C. Home Forces commanding the forces in Northern, Eastern and Southern Commands. The fourteenth phase covered the period following the outbreak of war with Japan and the entry of United States of America Forces into the South-West Pacific Area, and related to the appointment of General Sir Thomas Blamey as Commander-in-Chief, Australian Military Forces, the cessation of the Military Board and the replacement of the system of commands and bases by the field army and lines of communication areas. In March, 1943, First and Second Armies took over from Queensland, New South Wales and Victoria Lines of Communication Areas the command of all coast and static anti-aircraft artillery defences and training establishments. On 16th June, 1944, Western Command was re-established and took over the combined responsibilities of Third Australian Corps and Western Australia Line of Communication Area.

The fifteenth phase was the re-introduction in March, 1946, of the Military Board and the organization of commands and military districts, and the sixteenth phase was the commencement of the National Service Training Scheme in August, 1951 (*see* para. 5 p. 1097 and sub-para. (iv.) (c) p. 1102).

For greater detail on phases 8-14, *see* Official Year Book No. 38 and earlier issues.

(ii) *Population of Military Age, 30th June, 1959.* The following particulars show the estimated numbers of males of military age in the population of Australia as at 30th June, 1959. The total number of cadet age, 14 and under 18, was 319,968; of citizen soldier age, 18 and under 26, 535,392; and 26 and under 35, 675,309; making a total of 1,210,701 aged 18 and under 35, which is considered the best period for military service. In addition, there were 1,549,462 males 35 and under 60 in Australia at 30th June, 1959.

(iii) *Allotment of Units.* Under the Command Organization (*see* above), units are raised on a territorial basis, each State supplying its proportion of the personnel required for the fighting services.

The organization at 30th June, 1959, was as follows:—

Command Organization	..	Army Headquarters.
Northern Command	..	All formations and units in the Command.
Eastern Command	..	All formations and units in the Command.
Southern Command	..	All formations and units in the Command.
Central Command	..	All formations and units in the Command.
Western Command	..	All formations and units in the Command.
Tasmania Command	..	All formations and units in the Command.
Northern Territory Command	..	All formations and units in the Command.

Commands conform generally to state boundaries as follows:—Northern Command, Queensland; Eastern Command, New South Wales; Southern Command, Victoria; Central Command, South Australia; Western Command, Western Australia; Tasmania Command, Tasmania; and Northern Territory Command, Northern Territory; New Guinea is the responsibility of Northern Command.

(iv) *Military Training Systems.* (a) *General.* Particulars of the Military training systems in operation prior to the 1939–45 War, first on a compulsory basis and later voluntary, will be found in Official Year Book No. 38 and earlier issues.

The current plan for the Australian Regular Army provides for an average of 21,000 full time duty personnel, plus 4,700 civilians and a Citizen Military Force of 30,000 volunteers in peace. The A.R.A. order of battle comprises an infantry brigade group, and its logistic support force, a battalion group serving in Malaya, a battalion of the Pacific Islands Regiment, and appropriate headquarters and administrative staffs, maintenance and training units. The C.M.F. order of battle is designed to provide for six infantry brigade groups with appropriate combat and logistic support elements. A further proposal designed to increase the efficiency of the Army in modern conditions is currently under consideration. This relates to a reorganization of the operational units in the order of battle both A.R.A. and C.M.F. on lines similar to the United States Army which is based on the pentomic division comprising five strong battle groups, instead of the division—brigade—battalion structure.

(b) *The Australian Cadet Corps.* The Australian Cadet Corps is a voluntary organization comprised of School Cadet units. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. School Cadet units are raised at educational establishments throughout the Commonwealth, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of 14 years, and cadets, who in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorized establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units.

The establishment of the Corps is 33,500 all ranks, and at 30th September, 1959, comprised 279 School Cadet units with a posted strength of 32,460 all ranks.

(c) *National Service Training Scheme.* The Scheme introduced on 14th July, 1950, has been suspended and no further call up of trainees is planned. National Servicemen serving part time with Citizen Military Force units were however required to continue serving until 30th June, 1960, after which they had no further training obligation, unless they volunteered.

(v) *Women's Services.* In July, 1950, approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment into the Royal Australian Army Nursing Service commenced in November, 1950, and into the Australian Women's Army Corps early in 1951. In February, 1951, the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June, 1951, the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprises two Corps only.—

(a) Royal Australian Army Nursing Corps.

(b) Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command. One Company of the Royal Australian Nursing Corps is located in each Command excluding Northern Territory Command and Tasmania Command.

(vi) *Korea*. On 2nd August, 1950, the Commonwealth Government announced its decision to raise and dispatch to Korea one infantry battalion as part of Australia's contribution of military assistance to the United Nations. 3rd Battalion, The Royal Australian Regiment stationed in Japan, brought up to strength by special enlistments flown to Japan from Australia, became the Special Korean Force. 3rd Battalion, The Royal Australian Regiment, sailed from Japan on 27th September, 1950, for Korea, where it joined 27th British Brigade, later designated as 27th British Commonwealth Brigade. For its gallantry on 24th and 25th April, 1951, 3rd Battalion was awarded the United States Presidential Citation by the President of the United States of America. On the 4th October, 1951, the Commonwealth Government announced that a second infantry battalion would be sent to Korea to join 3rd Battalion. On 3rd March, 1952, 1st Battalion, The Royal Australian Regiment, which had been brought up to strength at Ingleburn (N.S.W.), embarked for Japan where it was equipped before moving to Korea. 1st Battalion joined 3rd Battalion now under operational control of 28th British Brigade, 1st Commonwealth Division, on 1st June, 1952. 2nd Battalion, the Royal Australian Regiment, after training at Puckapunyal, Victoria, relieved 1st Battalion in Korea on 21st March, 1953, the latter battalion returning to Australia. 2nd Battalion was relieved by 1st Battalion and returned to Australia in April, 1954, while 3rd Battalion returned to Australia in November, 1954. Following a reduction in the size of the British Commonwealth contribution to the United Nations Force in Korea and the decision to close the British Commonwealth Base in Japan, 1st Battalion was withdrawn from Korea on 24th March, 1956, and the Australian Army's contribution to the theatre was reduced to 90 all ranks. During 1957, the Australian Army's component in the theatre was progressively withdrawn except for two members with the Commonwealth Liaison Mission.

(vii) *Malaya*. On 1st April, 1955, the Commonwealth Government announced its decision to dispatch troops to Malaya as an Australian component of the British Commonwealth Far East Strategic Reserve. 2nd Battalion, Royal Australian Regiment, and 105th Field Battery, Royal Australian Artillery, and other minor units embarked from Australia on 6th October, 1955, and disembarked at Penang on 20th October, 1955. Since then an infantry battalion group and certain other personnel with integrated units have been stationed in Malaya, and this force has been relieved every two years or so. Members of minor units, and those posted to integrated units are replaced individually as necessary. The 1st Battalion Royal Australian Regiment, and 101st Field Battery Royal Australian Artillery are at present stationed in Malaya.

(viii) *The Staff College*. Until 1938, the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938, an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945, the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946, the Staff School (Australia) was established at Seymour in Victoria and re-designated the Staff College in conformity with other Empire training establishments for training officers for command and staff appointments. The College was later moved to Queenscliffe, Victoria, where it is at present situated. The courses are of ten months' duration and are held from January to November each year. The normal intake is 40 students and on successfully completing the course, an officer is awarded the symbol "psc". The course is designed to train selected officers for war, and in so doing to fit them for Command or Grade II. staff appointments. Each course includes, among the students, Army representatives of the United Kingdom and other Dominions and countries.

Included in the 1960 course are students from the United Kingdom, Canada, New Zealand, India, Pakistan, Ceylon, United States of America, Thailand, Malaya, the Philippines and Burma. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the British Commonwealth, liaison is maintained with other Staff Colleges, and to this end, there is also a reciprocal exchange of instructors between the United Kingdom and Australia. An instructor is now also provided by New Zealand. To this extent, it may be said that the Staff College is imperial in character.

(ix) *The Royal Military College*. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College

Regulations and provide for admission by "normal", "service", and "special" entries. The length of the "normal" course is four years; "service" entry cadets attend for three years; and "special" entries for one year.

While at the College, Staff Cadets are wholly maintained, and, in addition, are paid the following weekly rates, which include 17s. 6d. a week clothing allowance:—1st year £6 10s. 8d; 2nd year £6 19s. 5d.; 3rd year £7 15s. 2d.; 4th year £9 19s. 6d. An additional 3s. 6d. a week is payable when cadets reach 18 years of age. The course of instruction is organized into military and civil departments and the instructional staff comprises officers of the army and civilian professors. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces under an agreement made with the Government of that Dominion.

(x) *The Officer Cadet School.* The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces, National Servicemen, and civilians between the ages of eighteen and twenty-three years are eligible to apply for entrance. The course is of 44 weeks' duration, and on graduation, cadets are appointed second-lieutenants in the Australian Regular Army. They then normally proceed to further training at the Army School of the Arm or Service to which they have been allotted before being posted to regimental duties.

(xi) *The Women's Royal Australian Army Corps School.* The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales in 1958. It has two wings, one whose primary task is the training of officer cadets for the W.R.A.A.C. the other being for the training of non-commissioned officers at all levels and for other special courses. The officer cadets are selected from eligible applicants, who may be serving members between 21 and 32 years of age, or civilians between 21 and 30 years of age. The course is of six months' duration and, on graduation, cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

(xii) *The Army Apprentices' School.* The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army, and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of 15 and 17 years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year, boys are given their Army trade test and also take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life, when they eventually leave the Army. In addition to trade training, the Apprentices' School provides general educational facilities up to the School Leaving Standard.

(xiii) *Rifle Clubs.* The Australian Rifle Club movement, which had its origin in 1888 is provided for in the Defence Act and comprises an Australian Council of State Rifle Associations, State Rifle Associations, District Rifle Club Unions and Rifle Clubs. Prior to 1931, the administration of the organization was the responsibility of the Secretary for Defence. From that year, its control passed to the Department of the Army. This organization continued until the outbreak of the 1939–45 War. In 1941, Rifle Clubs were placed in recess, until August, 1946, when approval was given for the re-establishment of the movement on a civilian basis under the control of the Secretary, Department of the Army. Approximately 20 per cent. of the members served overseas and a further 60 per cent. performed home service duties during the 1939–45 War. Rifle shooting activities were resumed in 1946 and the strength of the movement as at 31st December, 1959, was 977 clubs and 43,115 members.

By decision of the Government, from 1st July, 1960, the Australian Rifle Club Movement was established as an independent organization outside the control of the Department of the Army and no further financial assistance will be provided for its maintenance.

(xiv) *Army Schools.* Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements, and to produce trained instructors. Courses at Army Schools are conducted for members of both the Australian Regular Army and the Citizen Military Forces.

The following Army Schools have been established:—

Jungle Training Centre.	Royal Australian Army Service Corps School.
Armoured School.	Royal Australian Army Ordnance Corps School.
School of Artillery.	Royal Australian Electrical and Mechanical Engineers' Training Centre.
School of Military Engineering.	Transportation Training Centre.
School of Survey.	Women's Royal Australian Army Corps School.
School of Signals.	School of Music.
Infantry Centre.	Air Support Unit.
Intelligence Centre.	School of Army Health.
Royal Australian Army Medical Corps.	

(xv) *The Australian Battles Nomenclature Committee.* The Minister for the Army gave approval on 25th July, 1947, for the formation of the Australian Battles Nomenclature Committee to tabulate and classify the operations fought in the Pacific Zones in the 1939–45 War which involved the Australian Military Forces, to define their geographical and chronological limits and to advise the United Kingdom Battles Nomenclature Committee regarding operations in zones other than the Pacific Zone in which the Australian Military Forces participated. Sub-committees were later appointed to study the various campaigns in order to classify the operations into battles, actions and engagements. In 1956, the terms of reference of the Australian Battles Nomenclature Committee were extended to cover the operations in Korea 1950–53.

Major-General Sir George F. Wootten, K.B.E., C.B., D.S.O., E.D., a distinguished soldier of both World Wars, was appointed by the Military Board to be Chairman of the Australian Battles Nomenclature Committee.

The final report of the United Kingdom Battles Nomenclature Committee was published in November, 1957.

3. **Strength of Australian Military Forces.**—The effective strength of the Australian Military Forces at 31st December, 1959, was as follows:—Australian Regular Army, 16,564; Regular Army Special Reserve, 3,384; other Permanent (including Women's Services, Trainees, etc.), 1,895; Citizen Military Force (including National Service Trainees), 55,120; Australian Cadet Corps, 30,073.

4. **Design and Inspection Branch.**—The control of this Branch reverted to the Department of the Army from the Department of Supply as from 12th March, 1959.

§ 4. Air Defence.

1. **General.**—A statement regarding the preliminary steps taken in connexion with the development of air defence appears in Official Year Book No. 18, page 610, and one on the expansion and development and zones and operations of the Royal Australian Air Force during the 1939–45 War in Official Year Book No. 36, page 1027.

2. **Administration and Organization.**—The Department of Air is responsible for policy for the organization and control of the Royal Australian Air Force. The Air Board is responsible, subject to approved policy, for the control and administration of the Royal Australian Air Force, and is constituted as follows:—Chief of the Air Staff, Air Member for Technical Services, Air Member for Personnel, Air Member for Supply and Equipment, Citizen Air Force Member and the Secretary, Department of Air.

Headquarters of the Royal Australian Air Force is in the process of moving from Melbourne to Canberra. A R.A.A.F. Representative is located at London and an Air Attache at Washington.

The units of the Royal Australian Air Force are organized in two functional Commands throughout Australia and its Territories.

The Commands are:—

Operational Command.—Operational Command is responsible for the command of operational units and the conduct of their operations within Australia and its territories.

Support Command.—Support Command is responsible for the command of training units, supply and servicing units; recruitment and individual training in the R.A.A.F., and supply and servicing including technical servicing of the R.A.A.F. in Australia.

The organization of the Royal Australian Air Force includes the following types of formations and units:—

- (a) *Formations.* These comprise a headquarters unit to control the activities of a number of units at one location. Each formation has a base squadron which provides common services to all units at the location.
- (b) *Flying Squadrons.* These bomber, fighter, transport and maritime reconnaissance squadrons undertake the operational and, in conjunction with operational conversion units, the operational training flying commitments of the R.A.A.F.
- (c) *Operational Conversion Units.* These units specialize in operational conversion training of aircrew for the bomber and fighter squadrons.
- (d) *Aircraft Depots.* These units specialize in major overhauls, etc., of aircraft and equipment and relieve flying unit ground staff of these commitments.
- (e) *Stores Depots.* Stores and equipment ordered by the R.A.A.F. are delivered to these centrally located depots for distribution to units.
- (f) *Flying Training, Ground Training, Navigation, Radio and Air Armament Training Units.* These units specialize in the aircrew and ground staff training required by the R.A.A.F.
- (g) *Airfield Construction Squadrons.* These units specialize in the construction of R.A.A.F. aerodromes and associated buildings and works services.
- (h) *Royal Australian Air Force College.* This unit is the training college for officer cadet entrants to the R.A.A.F.
- (i) *Telecommunications Units.* These units are responsible for the communications services of the R.A.A.F.
- (j) *R.A.A.F. Staff College.* This college trains specially selected R.A.A.F. officers for higher staff and command posts.

3. *Aircraft.*—Some of the aircraft which are at present being used in the Royal Australian Air Force are: bomber squadrons—Canberra; fighter squadrons—Vampire and Avon Sabre; transport squadrons—Metropolitan Hercules and Dakota; maritime reconnaissance squadrons—Lincoln and Neptune; air observation post—Cessna; training—Dakota, Canberra, Winjeel, Vampire, Meteor and Avon Sabre.

4. *Establishment.*—The Royal Australian Air Force establishment, as proposed, comprises an operational element and a support element consisting in all of approximately 16,328 personnel. The operational element consists of (a) Field Operational Force, (b) Operational Force, (c) Home Defence Force. The support element comprises the remainder of the R.A.A.F., and includes headquarters and administrative staffs and the organization for training, supply and maintenance.

5. *Strength of Royal Australian Air Force.*—At 1st March, 1960, the strength of the Royal Australian Air Force was as follows:—Permanent Air Force, 14,886; Active Citizen Air Force, 578; Active Reserve, 274 and General Reserve, 13,493.

6. *Women's Royal Australian Air Force.*—At 1st March, 1960, the Women's Royal Australian Air Force had an establishment of 890, with an enlisted strength of 715 (not included in the R.A.A.F. strength in para. 5, above). There are 28 musterings, excluding members of the W.R.A.A.F. in training. Details of enlistment and service in the W.R.A.A.F. are given in Official Year Book No. 44, page 1058.

7. *Operations in Korea and Malaya.*—Reference to R.A.A.F. participation in operations in Korea is contained in Official Year Book No. 40, pages 1112–13.

Australian assistance in the form of one transport squadron provided to the Malayan authorities is detailed in Official Year Book No. 40, page 1113.

One bomber squadron was provided for operations in Malaya. No. 1 (Bomber) Squadron, equipped with Lincolns and operating from a Royal Air Force base on Singapore Island, served in this capacity from July, 1950, until withdrawn in July, 1958. During this period, the squadron dropped approximately 35 million lb. of bombs during operations against communist bandits.

Subsequent to the withdrawal of No. 1 (Bomber) Squadron, the R.A.A.F. component of the British Commonwealth Strategic Reserve was deployed to the R.A.A.F. base at Butterworth, Malaya. The force includes No. 2 (Bomber) Squadron, No. 3 (Fighter) Squadron and No. 77 (Fighter) Squadron. Deployment was completed in March, 1959.

§ 5. War Gratuities.

Reference is made in earlier issues of the Official Year Book to the payments made under the provisions of the War Gratuity Acts 1920 (*see* No. 15, p. 930) and the War Gratuity Act 1945–1947 (*see* No. 41, p. 999).

§ 6. Department of Supply.

1. **General.**—Reference to the creation of the Department of Supply is contained in Official Year Book No. 39, page 1257. On 24th April, 1958, the Department of Defence Production was abolished and the functions previously undertaken by that Department were transferred to the Department of Supply. References to those functions and to the activities of the various branches and establishments of the former Department of Defence Production are contained in Official Year Book No. 44, pages 1059–61.

2. **Functions of the Department.**—The functions of the Department of Supply include—

- (i) Defence research and development, including the operation of the Joint United Kingdom—Australia Long Range Weapons Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories and associated establishments;
- (ii) Manufacture, acquisition, provision and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces;
- (iii) Arrangement of contracts for the supply of goods and the performance of services;
- (iv) Operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvasware and other defence goods;
- (v) Acquisition, maintenance and disposal of strategic materials;
- (vi) Planning and establishment of manufacturing facilities for the production of munitions and other defence goods;
- (vii) Investigation and development of Australian sources of supply in connexion with defence;
- (viii) Sale or disposal of surplus Commonwealth property other than land or buildings;
- (ix) Provision of Commonwealth transport facilities outside the Australian Capital Territory;
- (x) Provision and control of stores required for or in connexion with matters administered by the Department of Supply, and general storage for other Departments as required;
- (xi) Provision of security services within the Department;
- (xii) Arrangements for ascertaining costs and the control and limitation of profits in connexion with the production of munitions and other defence goods.

3. *Act Administered.*—The Minister for Supply administers the Supply and Development Act 1939–1948, except insofar as it concerns the building, repair and maintenance of merchant ships and the building, extension, operation, repair and maintenance of shipyards, drydocking and repair facilities for merchant ships.

4. *Research and Development Branch.*—(i) *General.* The Research and Development Branch, which is under the control of the Chief Scientist, is responsible for research and scientific development in relation to war *matériel* including the operation of the Joint United Kingdom—Australia Long Range Weapons Organization. The Chief Scientist is also the Chairman of the Board of Management for Research and Development, which is responsible for the efficient and economical conduct of research and development undertakings. The headquarters of the Branch is situated at 339 Swanston-street, Melbourne, and the following establishments are included in the Branch:—Weapons Research Establishment, Salisbury, South Australia; Defence Standards Laboratories, Maribyrnong, Victoria; Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

(ii) *Weapons Research Establishment, Salisbury, South Australia.* This Establishment has three main sections, namely, the Trials and Instrumentation Wing, the Weapons Research and Development Wing and the Engineering Wing.

The Trials and Instrumentation Wing is concerned with the Joint United Kingdom—Australia Long Range Weapons Project and is responsible for the testing of guided missiles developed in the United Kingdom. The Weapons Research and Development Wing is engaged chiefly on Australian-initiated research but also provides a supporting research service for the Joint Project. The Engineering Wing designs the technical features of new installations on the range and operates the engineering facilities of the Establishment.

The headquarters of Weapons Research Establishment consisting of the main laboratory workshop and administrative services, is located at Salisbury.

Accommodation has been provided in the area for a number of United Kingdom firms which are developing guided weapons under contract to the British Ministry of Supply.

A modern airfield (Edinburgh Field) has been established adjacent to the Headquarters at Salisbury to meet the flying requirements of the establishment, the flying effort being provided by the R.A.A.F.

Testing ranges have been provided at Woomera, which is approximately 280 miles north-west of Salisbury and 9 miles north of Pimba, which is on the trans-continental railway line. A number of these testing ranges are now in operation. A modern township of 500 houses and extensive barracks accommodation has been built, complete with community store, hospital, school and all amenities usually found in an Australian country town.

(iii) *Defence Standards Laboratories.* The Defence Standards Laboratories at Maribyrnong continue to give comprehensive service to industry, the armed services and to other Commonwealth and State Departments.

The broad function of these laboratories is the application of scientific knowledge and research to the problems arising in design, development, manufacture, inspection, storage, and use of war *matériel*. Research is also carried out in connexion with the development of new and improved materials, methods and equipment of known or potential interest.

(iv) *Aeronautical Research Laboratories.* The broad function of the Aeronautical Research Laboratories is the application of scientific knowledge in the field of aeronautics to the operational and technical problems of the armed Services and industry, and to the development of new weapons and military equipment. More specifically, the Laboratories conduct investigations in aerodynamics, structures, materials, and power plants with particular attention to aeronautical defence problems, especially those of missile design and operational effectiveness. These Laboratories also collaborate with the United Kingdom on aeronautical research matters of mutual interest.

5. *Production.*—(i) *Munitions.* The Department is responsible for the production in Australia of munitions (other than specialized Navy requirements) for the Armed Services. The production is undertaken both in government-operated factories and in industry. Broadly this production is allocated as follows:—

(a) Some processes are undertaken entirely by the government factories in peace and war because of special requirements.

- (b) Some classes of equipment and components are produced entirely by industry in peace and war.
- (c) Production techniques of advanced equipment and components, which may be mass-produced by industry in war, are developed in the government factories in peace.
- (d) Requirements of standard equipment and components produced by the government factories in limited quantities in peace are, in war, produced on a mass production basis in industry.

The following government factories are currently in operation:—Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St. Mary's, New South Wales; Ordnance—Maribyrnong, Bendigo and Port Melbourne, all in Victoria; Small Arms—Lithgow, New South Wales; Clothing—Victoria.

With the exception of the Clothing Factory, these factories are complementary to each other in the manufacture of a range of basic munitions. The Ammunition Factory makes the brass and non-ferrous components of gun ammunition, including melting and rolling and these components are then passed to the Filling Factories for filling with explosives. However, the factory makes the complete round for small arms ammunition, the propellant being supplied by the Explosives Factories. The Ordnance Factories make guns principally. In addition, steel shell bodies are produced by these establishments and passed to the Filling Factories to be filled with explosives and assembled with the brass and other components received from the Ammunition Factory.

The Bendigo factory is specially equipped to produce also main propulsion gearing for Naval destroyers and frigates. The Port Melbourne works produces marine engines.

The Explosives Factories make the propellant and high explosives for the brass components produced at the Ammunition Factory and for the steel components made at the Ordnance Factory. The Explosives Factories also assemble the gun ammunition.

The Small Arms Factory is equipped to make the rifles and other small arms for which the Ammunition Factory makes the ammunition. The factory is currently producing the F.N. 7.62 mm. automatic rifle for the Australian Army to replace the .303 Lee Enfield rifle. Orders for the new rifle have also been received from the Ghana and New Zealand Governments.

Production of munitions is also a joint effort between the Government factories and private contractors in industry. In peace, industry produces many components for ammunition and other stores plus complete units such as electronic equipment and motor vehicles for the Services. In war, industry would provide the major capacity for mass production not only of these and many other new items, but also of equipment and components using engineering techniques developed in peacetime in the Government factories.

(ii) *Aircraft.* (a) *General.* The production in Australia of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force is administered by the Department of Supply. The planning of capacity and the negotiation of contractual arrangements in connexion with aircraft repair and overhaul activities carried out for the Services in civilian establishments, as distinct from Service workshops, are also functions of the Department, together with the responsibility for the supply of certain aircraft and engine spare parts and airborne equipment.

(b) *Aircraft, Engine and Other Production.* The approved production programmes for the major aircraft manufacturing organizations in Australia comprised Jindivik radio-controlled jet-propelled target aircraft and the Malkara guided missile at the Government Aircraft Factory, Melbourne; Avon-Sabre jet-engined fighters and Rolls-Royce Avon Turbo-jet engines at Commonwealth Aircraft Corporation Pty. Ltd., Melbourne; and Vampire jet-trainers at De Havilland Aircraft Pty. Ltd., Sydney.

Production activities included the manufacture of engine parts at the Aircraft Engine Factory, Sydney, of aircraft pressed metal parts at Chrysler Australia Ltd., Adelaide, and of turbine and compressor blades for jet engines at National Forge Pty. Ltd., Melbourne.

(c) *Repair and Overhaul.* During the year, the broad policy was continued by the R.A.A.F. of returning to the factories in which they were produced all Australian-made aircraft and aero engines requiring major overhaul and the incorporation of modifications. Repair and overhaul of R.A.A.F. aircraft of certain other types and of carrier-based aircraft operated by the R.A.N. were undertaken by civilian personnel in the aircraft factories or in the works of contractors specially equipped to handle this type of work.

Canberra bomber and Jindivik target aircraft were repaired and modified at the Government Aircraft Factory. Avon-Sabre fighter aircraft were repaired and modified and Rolls-Royce Nene and Avon turbo-jet engines were overhauled by Commonwealth Aircraft Corporation Pty. Ltd., Melbourne. Pratt and Whitney Twin Row Wasp engines from the R.A.A.F., Armstrong-Siddeley Double Mamba turbo-prop engines from the R.A.N., and Rover Meteor tank engines from the Department of the Army were overhauled at the Aircraft Engine Factory, Sydney. Propellers from the R.A.A.F. and R.A.N. were overhauled at the Propeller Annexe, Alexandria, N.S.W. Wright turbo-compound engines from R.A.A.F. Neptune aircraft were overhauled by Qantas Empire Airways Ltd., Sydney.

Carrier-based Sea Venom aircraft, Vampire fighters and trainers, together with Ghost turbo-jet engines from Sea Venoms and Goblin turbo-jet engines from Vampire trainers were repaired and overhauled at De Havilland Aircraft Pty. Ltd. Dakota transport and other miscellaneous aircraft were reconditioned and serviced at the Government workshops at Parafield, South Australia.

The repair and overhaul of carrier-based Fairey "Gannet" aircraft for the R.A.N. and the erection of "Meteor" target aircraft for the Woomera Rocket Range were handled by the Fairey Aviation Company of Australasia Ltd., Sydney.

Sycamore helicopter aircraft, Bristol freighter aircraft, Alvis Leonides and Bristol Hercules engines were repaired and overhauled by Bristol Aviation Services, also in Sydney.

The reconditioning and servicing of aircraft instruments, electrical, electronic and other ancillary equipment and airframe components were carried out by various contractors.

(d) *Avalon Test Field.* The final assembly, fitting out and flight testing of military aircraft built, overhauled or modified at the Melbourne aircraft factories was continued during the year at the Avalon Airfield, near Geelong, Victoria. The airfield was also used for the training of civil flight crews on Boeing jet-aircraft operated by Qantas Empire Airways Ltd. and on other civil airliners operated by Trans-Australia Airlines and Ansett-A.N.A.

(e) *Rationalization of Aircraft Industry.* Certain proposals for the rationalization of the aircraft industry in New South Wales were approved by the Government during the year, involving—

- (i) the termination of the arrangement under which the Lidcombe engine factory had been managed as an annexe by the Commonwealth Aircraft Corporation Pty. Ltd. and the leasing of the factory to De Havilland Aircraft Pty. Ltd.
- (ii) the closing down of the propeller annexe, formerly managed by the De Havilland Company on behalf of the Commonwealth.
- (iii) the transfer to the Lidcombe factory of engine and propeller overhaul activities from the De Havilland Bankstown works and the propeller annexe respectively.

(f) *Telecommunications.* Developmental and production orders were placed with industry for new and improved types of Service telecommunications equipment.

6. *Contract Board.*—(i) *General.* Under the Supply and Development Act 1939–1948, the Contract Board is the authority responsible for purchasing supplies and arranging services for the Military, Naval and Air Forces of the Commonwealth, as well as for the Department of Supply. It is also responsible for the sale or disposal of all surplus or unserviceable war *matériel* and other goods approved for disposal. In addition, the Board purchases and arranges disposals on behalf of other Commonwealth Government departments and authorities which have no public contract organization of their own, e.g., Immigration, National Development and External Affairs (Colombo Plan supplies).

(ii) *The Board and its Administrative Organization.* The Contract Board meets in Melbourne, and comprises representatives of the Departments of Supply, Navy, Army and Air. The Board's administrative organization is the Directorate of Contracts. In each State other than Victoria, there is a District Contract Board with an administrative organization similar to the Directorate of Contracts. The table following shows, in respect of the Contract Board organization, the purchases and realizations from disposals for the years 1957–58 and 1958–59.

CONTRACT BOARD ORGANIZATION : PURCHASES AND REALIZATIONS FROM DISPOSALS.**(£.)**

State.	Purchases.		Realizations from Disposals.	
	1957-58.	1958-59.	1957-58.	1958-59.
Contract Board, Victoria	18,358,263	31,756,415	1,619,495	1,343,623
District Contract Board—				
New South Wales	5,315,790	4,906,385	1,472,657	1,432,395
Queensland	1,006,079	868,149	420,508	458,951
South Australia	845,181	1,242,548	376,970	382,450
Western Australia	370,607	363,775	159,503	224,761
Tasmania	81,288	91,339	34,749	35,673
Total	25,977,208	39,228,611	4,083,882	3,877,853

7. Defence Supply Planning.—The central planning authority of the Department is the Planning Branch, the principal functions of which are—

- (i) to plan for and to assist in the development of additional production capacity to meet the Services' munitions requirements for mobilization and war;
- (ii) to provide and administer stockpiles of relevant materials and reserve pools of plant and equipment considered essential for expansion of production in the event of war;
- (iii) to prepare and progress co-ordinated production programmes against Service orders and to analyse and interpret achievement against these programmes for the information of the Department and the Services;
- (iv) to provide advisory service in the field of instrumentation and inspection to Government factories and contractors engaged in the production of munitions requirements; and
- (v) to carry out surveys of production capacity and to indicate steps necessary to augment capacity in the event of war.

Attached to the Planning Branch is the Defence Supply Planning Committee which acts as a reviewing body in defence production matters for submission to the Higher Defence Machinery. Its membership includes representatives of the three Services and the Departments of Defence, Supply and Trade.

A series of Industry Advisory Committees has been established to advise the Minister and the Department in the development of industrial mobilization plans to meet the Services *matériel* requirements for mobilization and war. The Committees are: Ammunition; Electrical; Explosives and Chemicals; Machine Tools and Gauges and Munitions Factory Equipment; Materials; Military Vehicles; Radar and Telecommunications; Weapons and their Equipment; Hard Fibres; Raw Cotton; and Rubber and Allied Materials.

Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

8. Stores and Transport Branch.—This Branch, administered by a Board of Management and working under the direction of a General Manager, functions as the Central Storage Authority and the Central Transport Authority for all Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States but not in the Australian Capital Territory and the Northern Territory. It has agents in Canberra and Darwin. It also operates a Shipping and Customs Section and the England-Australia Bulk Air Freight Scheme for Commonwealth Departments.

On 30th June, 1959, it had under its control land, buildings and works, vehicles, plant and equipment valued at £8,705,852 and 3,397,373 sq. ft. of storage space as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

9. Finance Branch.—The expenditure on Department of Supply activities during the year 1958–59 is shown in the following table:—

SUPPLY : TOTAL EXPENDITURE.

(£'000.)

Particulars.	Expenditure 1958–59.
Parliamentary Appropriations	20,961
Trust Fund Accounts—	
Stores and Transport	4,680
Government Factories and Establishments	15,161
Munitions Production	10,009
Defence Production Materials	54
Aircraft Production	8,676
<i>Total Trust Accounts</i>	38,580
<i>Total Expenditure</i>	59,541

CHAPTER XXIX.

REPATRIATION.

§ 1. General.

The Repatriation Commission, established under the Repatriation Act 1920-1959, is a body corporate consisting of three full-time members. The head office is in Melbourne, but there is a branch office in each State under the control of a Deputy Commissioner.

Its principal functions are—

- (i) the payment of war and service pensions to ex-service men and women and their dependants;
- (ii) the provision of medical treatment to ex-service men and women for injuries and illnesses caused or aggravated by their war service;
- (iii) the provision of medical treatment in certain circumstances to ex-service men and women, and to their dependants, who are suffering from injuries and illnesses not caused or aggravated by war service.

Other functions of the Repatriation Commission are outlined in a later section of this chapter (*see* § 5, General Benefits and Miscellaneous, page 1121).

During the year 1958-59, the Repatriation Act was amended by the Repatriation Act, No. 58 of 1959, which increased certain rates of war pension and service pension, and allowances payable under the Fifth Schedule to the Act in respect of certain specified disabilities.

The Repatriation (Far East Strategic Reserve) Act 1956, which provided benefits for members of the defence forces who served with the British Commonwealth Far East Strategic Reserve in Malaya, came into force on 1st September, 1957.

§ 2. War Pensions.

1. *General.*—The first provision for the payment of war pensions to members of the forces and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914, which came into operation on 21st December, 1914. This Act was repealed in 1920 by the Australian Soldiers' Repatriation Act (amended from 31st December, 1950, to the Repatriation Act). Owing to limitations of space, only some of the main features relating to war pensions under the Repatriation Act 1920-1959 are set out in the following paragraphs:—

(i) *Eligibility for Pension.* The 1943 amendments to the Repatriation Act considerably widened the provisions in this respect, to the benefit, mainly, of members of the Citizen Military Forces who have not served outside Australia. These provisions are summarized as follows:—

- (a) A member of the forces who served (1) outside Australia, (2) in the Territories of Australia, such as Papua and New Guinea, or (3) within Australia in

circumstances which can be regarded as combat against the enemy, is covered for war pension purposes in respect of incapacity or death which may result from any occurrence that happened during the period from the date of his enlistment to the date of the termination of his service in respect of that enlistment.

(b) In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

(c) There is a third ground applicable to all in (a) and those in (b) who have had at least six months' camp service. This provides that, where a condition existed at enlistment, a pension may accrue if it is considered that the condition was aggravated by service.

(ii) *Pensions for Incapacity.* From 1st October, 1959, the 100 per cent. pension rate for a member's incapacity was increased from £5 2s. 6d. to £5 10s. 0d. a week (higher rates were payable in respect of certain commissioned ranks). The rates for wives and children of incapacitated members are £1 15s. 6d. and 13s. 9d. a week, respectively.

(iii) *Supplementation of Pensions.* Where a member is, because of his war disability, temporarily (for at least three months) precluded from earning other than a negligible percentage of a living wage an additional pension may be granted to bring the total pension to the member up to £12 5s. a week, an increase of 15s. from 1st October, 1959.

(iv) *Women's Nursing and Auxiliary Services.* Members of Women's Services are eligible for pensions and other benefits as prescribed in the Act on the same basis as male members of the Forces.

(v) *Pulmonary Tuberculosis.* If at any time after discharge, a member of the Forces who served in a theatre of war became or becomes incapacitated, or died or dies, from pulmonary tuberculosis, war pension is payable as if the incapacity or death resulted from an occurrence on service. (See also § 3. Service Pensions.) Medical treatment may also be provided on application.

(vi) *Special Rates.* Those who have been totally blinded as a result of war service and those who are permanently and totally incapacitated receive a special pension which was increased from £11 10s. to £12 5s. a week from 1st October, 1959. The rate for Tuberculars, Class "B" (fit for light employment) was similarly increased from £8 2s. 6d. to £8 12s. 6d. a week. In addition to the special pension, an attendant's allowance of £2 15s. a week is granted to the war-blinded and to certain others who are deemed to be in need of an attendant. A war-blinded member who is also affected with total loss of speech or total deafness is entitled to an attendant's allowance of £4 10s. a week in lieu of that referred to above. The wife and any children under 16 years of age receive the same rates as shown in sub-para. (ii).

(vii) *Clothing Allowance.* As from 1st October, 1959, provision was made for ex-members of the Forces to receive a clothing allowance ranging from 3s. 9d. to 7s. 6d. weekly for damage to clothing caused by the use of an artificial limb or other appliance where the incapacity is due to war service or by the use of oils, ointments, or other substances used in the necessary treatment of accepted disabilities, e.g. skin diseases, suppurating wounds, etc.

(viii) *Specified Disabilities.* Where the disability is amputation of a limb or limbs or total loss of vision in one eye, amounts ranging from 13s. 6d. to £6 15s. a week in addition to the statutory rate of pension are payable as from 1st October, 1959. In addition, attendants' allowances of either £2 15s. or £4 10s. a week are payable in certain double amputation cases.

(ix) *Time Limit Removed for Wives and Children.* Prior to the 1950 amending Act, wives who were married and children who were born after specified dates, were ineligible to receive a war pension. This time limit was removed as from 2nd November, 1950.

(x) *Rates of Pension for Death. (a) Widows.* From 1st October, 1959, the rates of pension were increased by 7s. 6d. a week, the minimum rate being increased from £4 17s. 6d. to £5 5s. a week (higher rates are payable in respect of certain commissioned ranks). In addition to the pension, the widow, if she has dependant children, receives an allowance if she is permanently unemployable, or if she is over 50 years of age; this allowance was increased from £2 7s. 6d. to £2 15s. a week as from 1st October, 1959. The allowance may also be paid to a widow under 50 years of age, in certain cases, so long as the child (or one of the children if more than one child) over the age of sixteen, is undergoing education or training but has not qualified for (or is not receiving) the adult wage in the occupation for which he or she is training.

(b) *Children.* From 2nd October, 1958, the rate of pension for the eldest child (under 16 years of age) was increased from £1 6s. 6d. a week to £1 11s. 6d. a week, and that for each younger child from 18s. 6d. a week to £1 2s. 6d. a week. Additional pension of 6s. a week may be paid in certain circumstances. Where both parents are dead, pension payable to each child was increased from £2 8s. a week to £3 3s. a week.

(xi) *Widowed Mother on Death of Member.* A pension ranging from £2 5s. to £4 3s. a week, according to the rank of the member, may be granted to the widowed mother of a deceased unmarried son, provided widowhood occurred either prior to or within three years after the death of the member. The pension may be supplemented by payment of an additional amount (not exceeding £4 15s. a week as from 1st October, 1959) according to the extent of other income of the pensioner. The value of property owned does not affect the pension.

2. *Appeals Tribunals.*—The principal Act was amended, as from 1st June, 1929, to create tribunals to hear appeals in respect of war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-members of the Forces or their dependants against a decision of the Repatriation Commission that the incapacity or death of an ex-member did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of the incapacity of an ex-member of the Forces which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain members whose application for a service pension had been refused.

3. *Summary of War Pensions, 1958-59.*—At 30th June, 1959, the number of war pensions for the 1914-18 War was 127,460, for the 1939-45 War 509,698, and for the Korea and Malaya Operations 4,889, making a total of 642,047 with a liability of £51,206,075 per annum. The amount paid in war pensions during the year 1958-59 was £50,857,423. The general details for 1958-59 for each war are listed in the following table:—

WAR PENSIONS: SUMMARY, AUSTRALIA, 1958-59.

Particulars.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total.
New claims granted	2,098	27,829	834	30,761
Restorations	401	1,226	9	1,636
Claims rejected (gross)	2,767	18,954	1,193	22,914
Pensions reviewed	11,902	54,331	599	66,832
Pensions cancelled or discontinued	1,091	10,494	60	11,645
Deaths of pensioners	4,598	2,523	13	7,134
Number of pensions in force at 30th June, 1959	127,460	509,698	4,889	642,047
Annual pension liability at 30th June, 1959 £	21,032,135	29,904,732	269,208	51,206,075
Amount paid in pensions during the year 1958-59 £	(a)	(a)	(a)	50,857,423

(a) Not available.

4. **Classes of War Pensions, Australia, 1958-59.**—(a) *New Claims Granted.* The following is an analysis of the total number of new claims granted during 1958-59:—

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1958-59.

Class.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total.
Members	767	5,552	205	6,524
Wives of Members	1,028	5,705	192	6,925
Children	204	15,860	421	16,485
Other Dependants	99	712	16	827
Total	2,098	27,829	834	30,761

(b) *Pensions in Force.* The following table shows the number of pensions in force at 30th June, 1959, for each war and for each class of pensioner:—

WAR PENSIONS IN FORCE, AUSTRALIA, 30th JUNE, 1959.

Class.	Number of Pensioners at 30th June, 1959.			
	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total.
Members	54,005	151,249	1,670	206,924
Wives	48,096	126,137	1,109	175,342
Children	2,711	205,942	1,858	210,511
War widows	20,739	12,208	63	33,010
Children of deceased members	382	6,807	102	7,291
Orphans	30	115	..	145
Parents	1,201	7,000	84	8,285
Brothers and sisters	70	104	3	177
Others	226	136	..	362
Total(a)	127,460	509,698	4,889	642,047

(a) In addition, 16 pensions were being paid to members of the Far East Strategic Reserve and their dependants.

(c) *Special Rate Pensions.* At 30th June, 1959, special rate pensions were being paid to the following classes of members of the Forces:—

WAR PENSIONS: MEMBERS ON SPECIAL RATES, AUSTRALIA, 30th JUNE, 1959.

Class.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total.
Blinded members	246	219	3	468
Tubercular members	578	551	8	1,137
Totally and permanently incapacitated members	11,573	5,121	16	16,710
Tuberculars, Class "B"	137	278	2	417

5. **Number of War Pensioners and Annual Liability, States, etc., 30th June, 1959.**—The following table shows the number of pensions in force and annual liability for each war at 30th June, 1959, according to place of payment. (The amount paid is shown on p. 1118.,

WAR PENSIONS: NUMBER OF PENSIONERS AND ANNUAL LIABILITY, 30th JUNE, 1959.

Where Paid.	Number of War Pensions in Force at 30th June, 1959.				Annual Pension Liability (£.)
	Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
1914-18 WAR.					
New South Wales(a) ..	17,208	16,295	7,517	41,020	6,794,345
Victoria	18,152	16,734	7,516	42,402	6,982,397
Queensland	6,655	6,186	2,105	14,946	2,685,719
South Australia(b) ..	4,174	4,106	1,771	10,051	1,718,735
Western Australia ..	4,338	4,375	1,588	10,301	1,427,526
Tasmania	2,353	2,317	889	5,559	986,334
Australia	52,880	50,013	21,386	124,279	20,595,056
Overseas	1,125	1,202	854	3,181	437,079
Total	54,005	51,215	22,240	127,460	21,032,135

1939-45 WAR.

New South Wales(a) ..	52,473	107,984	9,812	170,269	10,161,050
Victoria	41,839	92,719	6,846	141,404	8,163,780
Queensland	20,657	48,423	3,282	72,362	4,519,270
South Australia(b) ..	16,060	38,065	2,611	56,736	3,142,860
Western Australia ..	13,732	29,407	2,158	45,297	2,558,852
Tasmania	5,939	15,190	722	21,851	1,207,390
<i>Australia</i>	<i>150,700</i>	<i>331,788</i>	<i>25,431</i>	<i>507,919</i>	<i>29,753,202</i>
Overseas	549	903	327	1,779	151,530
Total	151,249	332,691	25,758	509,698	29,904,732

KOREA AND MALAYA OPERATIONS.

New South Wales(a) ..	632	1,087	97	1,816	97,291
Victoria	398	703	68	1,169	62,277
Queensland	289	512	34	835	50,257
South Australia(b) ..	119	233	8	360	20,031
Western Australia ..	131	264	15	410	22,483
Tasmania	68	135	8	211	9,885
<i>Australia</i>	<i>1,637</i>	<i>2,934</i>	<i>230</i>	<i>4,801</i>	<i>262,224</i>
Overseas	33	36	19	88	6,984
Total	1,670	2,970	249	4,889	269,208

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

6. Summary of War Pensions.—(i) *Number.* The following table shows, for each war and in total, the number of pensions granted, claims rejected, pensions in force, and the annual liability for pensions in each of the years ended 30th June, 1955 to 1959.

WAR PENSIONS: SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Number of War Pensions in Force at 30th June.				Annual Pension Liability at 30th June, (£.)	
			Incapaci- tated Members of the Forces.	Depend- ants of Incapaci- tated Members.	Depend- ants of Deceased Members.	Total.		
1914–18 WAR.								
1955	2,758	2,031	60,398	57,045	21,198	138,641	17,673,142	
1956	2,337	1,488	58,984	55,720	21,409	136,113	18,939,411	
1957	2,276	2,442	57,380	54,183	21,677	133,240	19,074,146	
1958	2,353	2,368	55,814	52,806	21,985	130,605	20,739,134	
1959	2,098	2,767	54,005	51,215	22,240	127,460	21,032,135	
1939–45 WAR.								
1955	33,748	18,380	134,979	282,367	25,516	442,862	22,424,840	
1956	30,098	13,756	139,249	296,214	25,391	460,854	24,548,421	
1957	28,634	19,682	143,055	308,333	25,287	476,675	25,609,726	
1958	29,007	18,165	147,147	321,215	25,269	493,631	28,339,013	
1959	27,829	18,954	151,249	332,691	25,758	509,698	29,904,732	
KOREA AND MALAYA OPERATIONS.								
1955	642	507	878	949	207	2,034	125,738	
1956	676	305	1,057	1,382	208	2,647	157,155	
1957	782	616	1,279	1,881	215	3,375	188,864	
1958	820	989	1,478	2,408	240	4,126	235,300	
1959	834	1,193	1,670	2,970	249	4,889	269,208	
TOTAL.								
1955	37,148	20,918	196,255	340,361	46,921	583,537	40,223,720	
1956	33,111	15,349	199,290	353,316	47,008	599,614	43,644,987	
1957	31,692	22,740	201,714	364,397	47,179	613,290	44,872,736	
1958	32,180	21,522	204,439	376,429	47,494	628,362	49,313,447	
1959	30,761	22,914	206,924	386,876	48,247	642,047	51,206,075	

(ii) *Amount Paid and Place of Payment.* The following table shows for the years 1954–55 to 1958–59 the amounts paid in pensions and the place where they were paid:—

WAR PENSIONS: AMOUNT PAID.

(£.)

Place of Payment.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
New South Wales(a)	14,100,305	14,501,426	15,297,734	16,824,229	16,813,419
Victoria	11,975,025	12,718,047	13,372,248	14,871,179	15,201,405
Queensland	5,385,216	5,763,319	6,106,669	6,919,363	7,215,834
South Australia(b)	4,101,624	4,135,874	4,309,036	4,812,417	4,846,030
Western Australia	3,438,517	3,450,830	3,584,495	4,008,412	3,946,502
Tasmania	1,933,349	2,017,289	2,026,868	2,211,862	2,229,229
Overseas	514,575	578,892	506,737	630,735	605,004
Total	41,448,611	43,165,677	45,203,787	50,278,197	50,857,423

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

§ 3. Service Pensions.

1. **General.**—The Repatriation Act 1920–1959, administered by the Repatriation Department, provides for a service pension to be paid, subject to a means test of income and property, to:—

- (i) A male member of the Forces who is sixty years of age and who served in a theatre of war, or to a female member of the Forces who is 55 years of age and who served abroad. No pension is payable to the wife or children under 16 years of age of a member granted a service pension on account of age.
- (ii) A member of the Forces who is permanently unemployable and who served in a theatre of war (or, in the case of a female member, who served abroad). Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.
- (iii) A member of the Forces suffering incapacity from pulmonary tuberculosis whether or not the person served in a theatre of war. Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.

Only those persons who qualify under (iii) are entitled to receive both service and invalid pensions at the same time.

2. **Rate of Pension.**—The maximum rate of service pension is the same as that for age and invalid pensions paid by the Department of Social Services, namely, £4 15s. a week. A member service pensioner with two or more children under 16 years of age in his care, custody and control, is eligible for a further 10s. a week for each child except the first, if he receives a service pension on the ground of being permanently unemployable, or suffering from pulmonary tuberculosis. In addition, a service pensioner in receipt of service pension at the maximum rate may also receive Supplementary Assistance of 10s. a week if he pays rent and is entirely dependent upon his service pension.

The maximum rate for a member's wife is £1 15s. a week; the rate for the first child under sixteen years of age is 11s. 6d. a week and for each other child (not exceeding three) 2s. 6d. a week.

A member who is single may have income up to £3 10s. a week from sources other than his pension and still receive the maximum service pension. If income from other sources exceeds £3 10s. a week, the pension is reduced by the amount of the excess. No service pension is payable if income from other sources reaches or exceeds £8 5s. a week. For this purpose, the term "income" includes a war pension, and income derived from any source other than from property, but does not include a gift or allowance from a claimant's parents, children, brothers or sisters, maternity allowance, child endowment or other payments in respect of children, a benefit not being a payment of a gratuity from any friendly society, a payment not being a payment of a gratuity in respect of illness, infirmity or old age from any trade union, the value of State food relief or like assistance granted under any law of a State or Territory, Commonwealth hospital and medical benefits (including an amount received from a registered benefit organization up to the total amount of fees), pharmaceutical benefits or a tuberculosis allowance, or interest on Commonwealth war gratuities.

The rate of pension is further reduced by 4½d. a week for every complete £10 by which the value of property owned by a member exceeds £200. No pension is payable if the value of the property exceeds £2,250. For this purpose, the term "property" includes all real and personal property such as houses or land or interests therein, money in a bank or invested, or lent to any person, bonds, shares, interests in estates of deceased persons, and livestock, but excludes the value of the home of the pensioner and of his furniture and personal effects, the surrender value (up to £750) of any life assurance policies, the capital value of any life interest, annuity or contingent interest, the present value of any reversionary interest, property to which the claimant or spouse is entitled from the estate of a deceased person but which has not been received, and the amount of any Commonwealth war gratuity.

For the purposes of the administration of the means test, the income and property of a married person are deemed to be half the total income and property of the husband and wife (unless they are legally separated or in certain other special circumstances). This

provision means that the pension of a married person, whether or not his spouse is a pensioner, will not be reduced because of the income he receives from sources other than his pension unless that income exceeds £8 5s. a week, nor will his pension be reduced on account of the value of his property unless that value exceeds £400.

Eligibility for service pensions was extended on 1st November, 1941, to veterans of the South African War 1899–1902 and in 1943 to members of the Forces of the 1939–45 War. Members who served in Korea, and those who served in Malaya prior to the commencement of the Repatriation (Far East Strategic Reserve) Act 1956, are also eligible.

3. **Operations, 1958–59.**—The following table gives a summary relating to service pensions during 1958–59:—

Claims granted during year—

Members of the Forces	..	..	..	..	4,869
Wives	..	..	..	..	1,727
Children	..	..	..	..	1,017
<i>Total</i>	..	..	..	..	<u>7,613</u>

Claims rejected during year—

Members of the Forces	..	..	..	..	1,164
Wives	..	..	..	..	587
Children	..	..	..	..	473
<i>Total</i>	..	..	..	..	<u>2,224</u>

Service pensions cancelled or discontinued during year	..	4,029
Deaths of pensioners during year	..	2,087
Pensions in force at 30th June, 1959	..	44,372
Annual pension liability at 30th June, 1959	..	£6,244,617

4. **Number of Service Pensioners and Amount Paid.**—(i) *Summary, Australia.* The following table shows the number of service pensions in force and the amount paid in pensions for the five years 1954–55 to 1958–59:

SERVICE PENSIONS : SUMMARY, AUSTRALIA.

Year.	Number of Service Pensions at 30th June payable to—						Amount Paid in Pensions during year ended 30th June.
	Aged Members of Forces.	Members of the Forces who are—		Dependants of Members where the Member is—		Total.	
		Permanently Unemployable.	Suffering from Pulmonary Tuberculosis.	Permanently Unemployable.	Suffering from Pulmonary Tuberculosis.		
1954-55	10,566	5,555	379	5,286	530	22,316	£ 3,011,861
1955-56	11,881	9,733	1,266	10,001	1,894	34,775	4,140,488
1956-57	13,547	10,794	1,449	11,074	2,213	39,077	4,907,362
1957-58	15,365	11,472	1,477	11,667	2,222	42,203	5,629,748
1958-59	16,973	11,898	1,433	11,956	2,112	44,372	6,220,300

(ii) *Amount Paid and State where Paid.* The following table shows for the years 1954-55 to 1958-59 the amount paid in pensions and the State where paid:—

SERVICE PENSIONS: AMOUNT PAID.

(£.)

State where Paid.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
New South Wales(a) ..	1,050,593	1,472,949	1,727,099	1,899,624	2,233,721
Victoria	684,636	958,825	1,089,529	1,319,599	1,387,328
Queensland	528,571	679,181	845,828	945,654	995,258
South Australia(b) ..	287,624	401,159	477,229	520,481	583,826
Western Australia ..	361,294	482,021	547,473	697,531	775,769
Tasmania	99,143	146,353	220,204	246,859	244,398
Australia	3,011,861	4,140,488	4,907,362	5,629,748	6,220,300

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

§ 4. Medical Treatment of Ex-Servicemen Suffering from War Service Disabilities.

At 30th June, 1959, there were 4,022 in-patients in Repatriation medical institutions and State mental hospitals, including a number whose care was undertaken by the Repatriation Commission on behalf of other countries or Commonwealth departments. There were 381,756 out-patient attendances for treatment during the year, excluding approximately 1,224,507 treatments by local medical officers resident in metropolitan and country areas and in New Guinea. The expenditure for the year ended 30th June, 1959, was £12,173,009.

§ 5. General Benefits and Miscellaneous.

1. *Other Departmental Activities.*—(i) *General.* During the 1939-45 War, the ordinary activities of the Department in the way of general benefits for the welfare of members and dependants were carried on without interruption. They were mainly education and training of children under the Soldiers' Children Education Scheme, medical benefits for widows and children of deceased members and for widowed mothers of deceased unmarried members, funeral expenses for certain classes of members and dependants, and allowances to certain classes of dependants.

By legislation passed in June, 1940, these benefits were extended to members engaged in the 1939-45 War and in November, 1950, to those engaged in the Korea and Malaya Operations, and new benefits designed for the re-establishment of members after discharge from the Forces were made available. The re-establishment benefits administered by the Repatriation Commission are:—payment of re-employment allowance while awaiting employment; provision of tools of trade and equipment where such are necessary to the member's employment; transportation expenses to meet the cost of fares and removal of household belongings, where a member takes up training, employment, or a business, or settles on the land; supplementing of wages of apprentices whose apprenticeships were interrupted by war service; re-establishment loans to enable members and widows to establish themselves in business, practices or other occupations, including (until the Division of War Service Land Settlement began operations early in 1946) agricultural occupations; payment of re-establishment allowance during the early stages of establishment in business; gifts up to £75 for furniture to members who are blind or totally and permanently incapacitated, also to widows with children under 16 years of age; and free passages to Australia for wives, widows and children of members who married abroad (and passages outward from Australia in certain cases of members and dependants).

In 1949, the Commission took over the functions of the Re-establishment Division of the former Department of Post-war Reconstruction, and is now responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. Re-establishment of the more seriously disabled, where ordinary training is not sufficient, continues to be a function of the Commission, and special means have to be found to overcome each problem.

(ii) *General Repatriation Benefits.* The following table gives a summary of expenditure during 1958–59 on the more important general repatriation benefits for all wars.

GENERAL REPATRIATION BENEFITS, 1958–59.

Benefit.						Expenditure, 1958–59.	
						£	£
<i>Medical Treatment of Members—</i>							
Operation of Institutions	..	..	..	..	..	6,466,016	
Dispensing of Prescriptions	..	..	..	..	..	1,680,221	
Fees to Consultants, etc.	..	..	..	..	..	1,100,142	
Maintenance of Patients in other than Repatriation Institutions	..	..	..	..	..	1,159,913	
Sustenance Allowance	..	..	..	..	..	698,560	
Other Treatment (Surgical Aids, Dental Treatment, etc.)	..	..	..	..	..	465,187	
							11,570,039
<i>Medical Treatment of Dependants</i>						..	602,970
<i>Employment and Vocational Training—</i>							
Re-employment Allowance	..	..	..	..	..	9	
Tools of Trade (gift)	..	..	..	..	..	3,133	
Tools of Trade (loan)	..	..	..	..	..	2,137	
Members in Training (a)	..	..	..	..	..	360,587	
Fares and Removal Expenses	..	..	..	..	..	2,575	
							368,441
<i>Business Loans</i>						..	36,750
<i>Furniture Grants—</i>							
Widows	..	..	..	..	..	49	
Members	..	..	..	..	..	..
							49
<i>Soldiers' Children Education Scheme</i>						..	608,442
<i>Living Allowances</i>						..	3,531,840
<i>Other Benefits</i>						..	239,167
Total						..	16,957,698

(a) Expenditure by the Department of Labour and National Service and the Universities Commission (now the Commonwealth Scholarships Board).

The following table gives a summary of expenditure during the five years 1954–55 to 1958–59 on the more important general repatriation benefits for all wars.

EXPENDITURE ON GENERAL REPATRIATION BENEFITS, SUMMARY 1954–55 TO 1958–59.

(£.)

Year ended 30th June.	Medical Treatment.	Employment and Vocational Training.	Business Loans and Furniture.	Soldiers' Children Education Scheme.	Living Allowances.	Other Benefits.	Total.
1955..	8,969,116	313,242	178,060	368,876	2,334,047	229,591	12,392,932
1956..	9,559,880	221,711	145,453	348,282	2,357,660	206,615	12,839,601
1957..	10,288,344	253,665	91,380	427,546	2,447,443	234,797	13,743,175
1958..	10,979,925	340,004	56,492	593,097	2,906,870	228,136	15,104,524
1959..	12,173,009	368,441	36,799	608,442	3,531,840	239,167	16,957,698

2. **Expenditure by the Repatriation Commission, 1958-59.**—The gross expenditure by the Repatriation Commission for the year ended 30th June, 1959, was £78,094,207, distributed as follows:—

<i>Repatriation Benefits—</i>		£	£
War and Service Pensions and Widows' Allowances ..		60,638,740	
Operation of Medical Institutions, Medical Treatment, etc.		12,456,829	
Soldiers' Children Education Scheme		608,442	
			73,704,011
<i>Other Benefits—Seamen's War Pensions, etc.</i>			130,705
<i>Administration</i>			3,186,513
<i>Capital Works and Services</i>			1,072,978
Total..			78,094,207

3. **Settlement of Returned Service Personnel on the Land.**—Reference to the settlement of returned service personnel on the land will be found in Chapter IV.—Land Tenure and Settlement.

4. **The Services Canteens Trust Fund.**—(i) *Introduction.* The Services Canteens Trust Fund was established under the Services Trust Funds Act 1947. This Act transferred to the Fund the profits and assets of the Army, Navy and Air Force canteens, the mess and regimental funds of disbanded wartime units, money derived from the sale of amenities supplied to the defence forces between 3rd September, 1939, and 30th June, 1947, and funds held by the A.M.F. Special Benefits Committee, the trustees of the R.A.N. Relief Fund and the trustees of the R.A.A.F. Welfare Fund.

(ii) *Establishment and Administration of the Fund.* The total amount transferred to the Fund to 31st December, 1959, was £5,526,723. The Act prescribed that of this, £2,500,000 and such further amounts as the trustees of the Fund may from time to time decide should be devoted to the provision of education facilities for the children of eligible ex-servicemen and women, and that the balance of the fund should be used to provide relief for ex-servicemen and women and their dependants in necessitous circumstances.

The Fund is administered by ten honorary trustees, appointed by the Commonwealth Government. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration.

Regional committees have been established in all Australian States, the Australian Capital Territory, the Northern Territory (Darwin and Alice Springs), New Zealand and London. All Australian diplomatic and consular posts also act as local representatives of the trustees. They have delegated to them by the trustees specific powers to deal with applications for assistance from the Fund.

Members of regional committees are all persons who served in the 1939-45 War or are widows of men who served during the war, and, with the exception of regional chairmen and deputy chairmen, have been selected by the trustees from nominees of the major ex-service organizations. They also serve in an honorary capacity.

(iii) *Assistance from the Fund.* Persons eligible for assistance from the Fund are those who between 30th September, 1939, and 30th June, 1947, served in the Australian Naval, Military or Air Forces, including members of the Canteens Staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Force who served in an official capacity on full-time paid duty, and their dependants.

The trustees are charged under the Services Trust Funds Act with:—

(a) providing educational assistance including professional and trade training—

- (i) for the children of deceased or incapacitated eligible servicemen or of eligible servicemen who are in needy circumstances; and
- (ii) for the children of other eligible servicemen, which children are in the opinion of the trustees particularly deserving of assistance by reason of exceptional circumstances;

b) providing benefits for—

- (i) eligible servicemen in necessitous or deserving circumstances;
- (ii) the dependants of deceased or totally or partially incapacitated eligible servicemen or of eligible servicemen in necessitous or deserving circumstances;
- (iii) the dependants of eligible servicemen other than those mentioned in paragraph (ii) above, which dependants are, in the opinion of the trustees, in necessitous circumstances or particularly deserving of assistance;
- (iv) the provision of relief or benefit for eligible servicemen and their dependants in such other cases as the trustees think fit.

The trustees have introduced schemes for providing—

- (a) welfare relief for ex-service men and women who are eligible for benefits and for their dependants;
- (b) benefits for children of eligible ex-service men and women who are suffering from serious and incapacitating afflictions; and
- (c) education benefits for the children of eligible ex-service men and women.

Because over 1,000,000 men and women and all their dependants are eligible for benefits, the assistance that can be provided in individual cases is limited and the trustees have prescribed a policy for welfare relief which makes assistance available only to those who are in genuine distress from which they cannot extricate themselves by their own efforts. Family counselling services are provided wherever practicable. In determining the nature or amount of relief to be granted, care is taken to use the fund constructively with the object of assisting the applicant to achieve independence, and of discouraging any tendency towards increasing dependence on social welfare organizations. For example, the regular supplementing of pension or low income for an indefinite period is contrary to the policy of the trustees, as it is quite impossible for the fund to assume a general responsibility of that nature. Instead, every effort is made to assist the applicant to adjust his mode of living or to increase his income himself so that he may live within it. Either the applicant, or his dependants, should be deserving of assistance.

From its inauguration in 1947, the Fund is to be available for 40 years for welfare relief and for 30 years for educational benefits.

Applications are carefully investigated to determine the bona fides of the applicant and the case presented, and to help regional committees in deciding the kind of assistance, if any, to be given. Where possible, investigations are made by trained social workers on the staff either of the Fund or of recognized agencies.

The following amounts of welfare relief have been granted from the Fund:—

Recipients.	Year 1959.	Total to 31st December, 1959.
	£	£
Ex-service men and women and dependants	51,436	776,201
Widows and orphans	25,136	318,741
Total	76,572	1,094,942

A total of 25,487 ex-service men and women, and 9,629 widows and orphans were granted welfare assistance from the Fund to 31st December, 1959.

Of all persons eligible for assistance from the Fund, widows and orphans are likely to be in greatest need, especially in the period immediately following the death of an ex-serviceman. Consequently, every effort is made to locate these widows and orphans and their degree of need is interpreted more liberally than is that of ex-servicemen.

Also particularly deserving of assistance are dependent children suffering from afflictions which permanently disable or seriously retard their progress or prevent the enjoyment of normal health and strength, and present a prospect of complete or partial dependence on others for all or part of their lives. The trustees introduced a plan to ensure that any

eligible child suffering from a serious affliction may be assisted as necessary to have access to whatever treatment or facilities are available to help the child to become as normal, self-reliant, self-supporting, socially acceptable, mobile, and happy as possible, despite his or her handicap. The extent to which assistance will be granted in a particular case depends largely on the nature of the child's affliction, the facilities available, the family circumstances, and the funds that can be made available.

Up to 31st December, 1959, 1,946 afflicted children had been assisted under the Afflicted Children's Scheme, involving an expenditure of £93,559.

Educational assistance is restricted to children who are 15 years of age and over, except in exceptional circumstances, when it may be granted from the age of 13, and in the case of orphans, when assistance may commence from the age of 12 years. The object of the trustees is to assist eligible children to obtain the highest education within their capacity.

Educational assistance from the Fund is in the form of awards ranging from £5 to £200 a year depending on the cost of the course undertaken and the family circumstances. These awards are granted for practically every type of course of education, whether secondary, tertiary or commercial. They are designed to cover, or contribute towards, the cost of essential books, fees in cases where government school courses are not available, fares between the child's home and school, essential equipment and material, a uniform allowance in certain years and a maintenance allowance for the child while at school.

The educational scheme also provides for one post-graduate scholarship each year for study overseas, valued at £1,000 per annum for three years.

Higher training education awards are also provided for selected students for post-graduate study in such fields as Physiotherapy, Speech Therapy, Occupational Therapy, Orthoptic Therapy, Laboratory Technique, etc.

The number of children assisted under the educational scheme to 31st December, 1959, was 27,528, and the expenditure on educational awards, post-graduate scholarships and higher training education awards to 31st December, 1959, was £1,406,896.

§ 6. Seamen's War Pensions and Allowances.

The Seamen's War Pensions and Allowances Act 1940 provides for the grant of—

- (a) pensions to Australian mariners and their dependants if the mariner, during the course of his employment, sustained injury through enemy action;
- (b) pensions to dependants of Australian mariners who, while in employment, were killed by enemy action;
- (c) detention allowances to Australian mariners and their dependants (if any) during any period of detention of mariners after capture by the enemy; and
- (d) compensation to Australian mariners in respect of personal effects lost or damaged through enemy action.

Regulations passed in 1942 provided that the wages of an Australian mariner, less the amount of any detention allowance, should continue if, while employed in sea-going service under articles of agreement entered into in Australia, or in the case of a pilot while employed on pilot duty, he fell into the hands of the enemy as a result of that employment and that the wages so continuing should be applied for the benefit of the mariner and his dependants. The wages would be paid by the Government of the Commonwealth of Australia for the first 18 months of the mariner's detention if he was employed in a ship owned by, or under requisition to, that Government, the United Kingdom Government or the Government of any country in the British Commonwealth, and thereafter irrespective of his employment.

Subsequent amendments to the Act and regulations raised pensions to rates corresponding to those payable under the Repatriation Act, and made mariners eligible for general benefits on the same scale as those available under that Act.

The following table gives a summary of the main statistics relating to seamen's war pensions and allowances.

SEAMEN'S WAR PENSIONS AND ALLOWANCES : SUMMARY, AUSTRALIA.

Year.	12 months ended 30th June.			Pensions payable at 30th June—			
	Pensions Granted.	Claims Rejected.	Expenditure.	To Incapa- citated Mariners.	To Dependants of Incapa- citated Mariners.	To Dependants of Deceased Mariners.	Total.
	No.	No.	£	No.	No.	No.	No.
1955 ..	20	40	27,805	52	34	130	216
1956 ..	24	15	30,416	52	48	127	227
1957 ..	27	38	32,629	54	65	115	234
1958 ..	22	33	34,261	52	61	102	215
1959 ..	11	19	34,695	48	67	88	203

CHAPTER XXX.

MISCELLANEOUS.

This chapter comprises miscellaneous statistics and other descriptive information not directly related to the subjects of the preceding chapters, arranged in sections as follows:—

1. Valuation of Australian Production; 2. Indexes of Production; 3. Consumption of Foodstuffs and Beverages; 4. Patents, Trade Marks and Designs; 5. Copyright; 6. Australian Shipbuilding Board; 7. Commonwealth Scientific and Industrial Research Organization; 8. Mount Stromlo Observatory; 9. Standards Association of Australia; 10. Industrial Design Council of Australia; 11. Film Censorship Board; 12. Australian National Film Board and the Film Division; 13. National Safety Council of Australia; 14. Australian Road Safety Council; 15. Australian Atomic Energy Commission; 16. The United Nations; 17. Australian Representation Abroad; Oversea Representation in Australia; 18. Retail Trade.

§ 1. Valuation of Australian Production.

1. General.—The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published below have been compiled by the Statisticians in the various States from the latest data available, and relate to 1958–59. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing renders the results comparable as between States.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used:—

- (a) *Gross Value of Production* is the value placed on recorded production at the wholesale price realized at the principal markets. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.
- (b) *Local Value* (i.e., the gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.
- (c) *Net Value of Production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays and other costs. No deductions have been made for depreciation or certain maintenance costs as particulars are not available for all States. The Net Value of Production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol and other oils has been made in New South Wales; and in the case of Tasmania, allowance for these items has been made in 1958–59 only. In the case of the mining and quarrying industry, however, this allowance has been made throughout. Costs of materials used in the process of production are not available for all States in respect of Bee-farming, Trapping, Forestry and Fisheries, and local values have been used for these industries with consequent overstatement in net values.

2. Value of Production, Australia, 1958-59.—The following table shows particulars of the gross, local and net values of production in Australia by industries during the year 1958-59.

GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES : AUSTRALIA, 1958-59.

(£'000.)

Industry.	Gross Production Valued at Principal Markets.	Local Value— Gross Production Valued at Place of Production.	Net Value of Production (with- out deduction of depreciation or maintenance).
Agriculture	459,892	387,317	328,943
Pastoral	538,048	490,018	443,622
Dairying	200,339	185,255	141,944
Poultry	54,778	49,208	27,360
Bee-farming	1,907	1,616	(a) 1,605
<i>Total, Rural</i>	<i>1,254,964</i>	<i>1,113,414</i>	<i>943,474</i>
Trapping	7,157	6,362	(a) 6,362
Forestry	56,106	52,273	(a) 52,273
Fishing and Whaling	12,265	11,243	(a) 11,243
Mines and Quarries	(a) 155,955	155,955	118,336
<i>Total, Non-rural</i>	<i>231,483</i>	<i>225,833</i>	<i>188,214</i>
<i>Total All Primary</i>	<i>1,486,447</i>	<i>1,339,247</i>	<i>1,131,688</i>
Factories	(b) 1,840,601	(b) 1,840,601	1,840,601
<i>Total, All Industries</i>	<i>3,327,048</i>	<i>3,179,848</i>	<i>2,972,289</i>

(a) Local value.

(b) Net value.

3. Net Value of Production, States, 1958-59.—The following tables show the total net value of production, and the net value per head of population, for each industry and State during the year 1958-59:—

NET(a): VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES, 1958-59.

(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
Agriculture ..	82,472	73,661	68,716	50,571	42,746	10,496	59	222	328,943
Pastoral ..	162,366	110,392	90,760	38,425	30,582	6,652	3,818	627	443,622
Dairying ..	53,795	44,382	25,098	9,374	2,829	6,249	31	186	141,944
Poultry ..	10,664	12,572	925	1,734	502	834	48	81	27,360
Bee-farming(b) ..	618	408	90	243	218	25	..	3	1,605
<i>Total, Rural</i> ..	<i>309,915</i>	<i>241,415</i>	<i>185,589</i>	<i>100,347</i>	<i>76,877</i>	<i>24,256</i>	<i>3,956</i>	<i>1,119</i>	<i>943,474</i>
Trapping(b) ..	1,961	3,562	203	453	47	134	2	..	6,362
Forestry(b) ..	15,574	14,063	8,356	4,103	5,067	4,887	44	179	52,273
Fishing and Whaling	2,947	1,265	1,343	1,071	3,867	664	86	..	11,243
Mining and Quarrying ..	55,801	10,987	19,796	9,999	14,454	5,168	1,997	134	118,336
<i>Total, Non-rural</i> ..	<i>76,283</i>	<i>29,877</i>	<i>29,698</i>	<i>15,626</i>	<i>23,435</i>	<i>10,853</i>	<i>2,129</i>	<i>313</i>	<i>188,214</i>
<i>Total, All Primary</i> ..	<i>386,198</i>	<i>271,292</i>	<i>215,287</i>	<i>115,973</i>	<i>100,312</i>	<i>35,109</i>	<i>6,085</i>	<i>1,432</i>	<i>1,131,688</i>
Factories ..	803,315	608,948	155,465	139,810	78,762	54,301	..	..	1,840,601
<i>Total, All Industries</i> ..	<i>1,189,513</i>	<i>880,240</i>	<i>370,752</i>	<i>255,783</i>	<i>179,074</i>	<i>89,410</i>	<i>6,085</i>	<i>1,432</i>	<i>2,972,289</i>

(a) See letterpress on p. 1127.

(b) Local value.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES
PER HEAD OF POPULATION, 1958-59.

(£ s. d.)

Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (b)
Agriculture ..	22 2 9	26 10 9	48 3 9	55 13 6	60 0 4	30 15 1	33 1 0
Pastoral ..	43 11 6	39 15 5	63 12 11	42 6 1	42 18 9	19 9 10	44 11 5
Dairying ..	14 8 9	15 19 10	17 12 0	10 6 6	3 19 5	18 6 3	14 5 3
Poultry ..	2 17 3	4 10 7	0 13 0	1 18 2	0 14 1	2 8 11	2 15 0
Bee-farming(c) ..	0 3 4	0 2 11	0 1 3	0 5 4	0 6 1	0 1 5	0 3 3
Total, Rural ..	83 3 7	86 19 6	130 2 11	110 9 7	107 18 8	71 1 6	94 15 11
Trapping(c) ..	0 10 6	1 5 8	0 2 10	0 10 0	0 1 4	0 7 10	0 12 9
Forestry(c) ..	4 3 7	5 1 4	5 17 2	4 10 4	7 2 3	14 6 5	5 5 1
Fishing and Whaling	0 15 10	0 9 1	0 18 10	1 3 7	5 8 7	1 18 11	1 2 7
Mines and Quarries	14 19 7	3 19 2	13 17 8	11 0 2	20 5 11	15 2 10	11 17 10
Total, Non-rural ..	20 9 6	10 15 3	20 16 6	17 4 1	32 18 1	31 16 0	18 18 3
Total, All Primary Factories ..	103 13 1 215 12 0	97 14 9 219 7 7	150 19 5 109 0 5	127 13 8 153 18 6	140 16 9 110 11 8	102 17 6 159 2 3	113 14 2 184 18 9
Total, All Industries	319 5 1	317 2 4	259 19 10	281 12 2	251 8 5	261 19 9	298 12 11

(a) See letterpress on p. 1127.

(b) Includes N.T. and A.C.T.

(c) Local value.

4. Net Value of Production, Australia, 1954-55 to 1958-59.—The following table shows the net value of production for Australia during the years 1954-55 to 1958-59.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND
FACTORIES : AUSTRALIA.

(£'000.)

Industry.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Agriculture	243,919	279,455	254,861	244,530	328,943
Pastoral	461,464	446,780	597,681	447,247	443,622
Dairying	135,798	154,905	140,792	127,624	141,944
Poultry	29,787	30,185	28,402	27,326	27,360
Bee-farming(b) ..	1,398	1,751	2,254	1,566	1,605
Total, Rural	872,366	913,076	1,023,990	848,293	943,474
Trapping(b)	4,961	6,047	6,013	6,027	6,362
Forestry(b)	44,047	50,059	52,099	51,306	52,273
Fishing and Whaling(b)	8,727	8,884	10,506	10,402	11,243
Mines and Quarries ..	118,087	132,510	139,982	126,802	118,336
Total, Non-rural ..	175,822	197,500	208,600	194,537	188,214
Total, All Primary Factories	1,048,188 1,365,509	1,110,576 1,500,714	1,232,590 1,622,120	1,042,830 1,728,723	1,131,688 1,840,601
Total, All Industries	2,413,697	2,611,290	2,854,710	2,771,553	2,972,289

(a) See letterpress on p. 1127.

(b) Local value.

In the chapters dealing with the respective industries (except trapping and mines and quarries), tables will be found showing the total value of production and the value per head of population for the industry by States for a series of years up to 1958-59.

§ 2. Indexes of Production.

In the first two tables in this section, indexes of price and quantum (i.e. value at constant prices) of production are given for the following industrial groups, namely:—Agriculture, Pastoral, Farmyard and Dairying, and All Farming combined (including separate indexes for Wool and Products other than Wool). In the third table, indexes of quantum (i.e. value at constant prices) of production, exports and consumption of farm products for food use are shown.

1. **Farm Production Prices Indexes.**—The Farm Production Price Indexes shown in the following table relate to average "prices" of agricultural, pastoral, farmyard and dairying products realized at the principal markets of Australia. The "price" data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc., of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year, irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. "Prices" for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers, the average quantities of the relevant commodities *produced* in the period 1923–24 to 1927–28 were used as fixed weights. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (see No. 43, page 1050). For 1936–37 and later years, the original series was replaced in December, 1952, by a revised series in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 were used as fixed weights. In the revised series, the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All Farming Index of quantities of crops marketed for livestock feeding in Australia.

FARM PRODUCTION : INDEXES OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA.

(Base: Average 1936–37 to 1938–39 = 100.)

Year.	Agri- culture.	Pastoral.	Farm- yard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.
1936–37	114	115	93	109	126	104
1937–38	98	98	102	99	95	100
1938–39	88	87	105	92	79	96
1939–40	100	105	105	104	102	105
1940–41	106	107	105	107	102	108
1941–42	111	108	107	110	102	113
1942–43	131	123	130	128	118	132
1943–44	149	128	147	139	118	146
1944–45	151	128	152	142	118	150
1945–46	174	133	159	157	118	169
1946–47	194	182	157	185	187	185
1947–48	267	263	183	247	301	230
1948–49	234	313	197	260	366	225
1949–50	272	396	228	316	483	261
1950–51	291	818	258	505	1,098	308
1951–52	355	501	332	410	552	363
1952–53	364	531	387	440	623	379
1953–54	324	534	395	429	621	365
1954–55	316	489	371	401	540	355
1955–56	330	451	392	397	468	373
1956–57	336	536	386	432	607	374
1957–58(a)	336	435	382	388	473	359
1958–59	322	396	386	369	370	369

(a) Revised.

2. **Indexes of Quantum (i.e. Value at Constant Prices) of Farm Production.**—The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series, the period 1923–24 to 1927–28 was adopted as the base for revaluing each farm product. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (*see* No. 43, page 1051). For 1936–37 and later years, the original series was replaced in December, 1952 by a revised series in which average unit values for the period 1936–37 to 1938–39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All Farming Index, of quantities of crops fed to livestock in Australia.

INDEXES OF QUANTUM(*a*) OF FARM PRODUCTION, AUSTRALIA.

(Base: Average 1936–37 to 1938–39 = 100.)

Year.	Agri- culture.	Pastoral.	Farm- yard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.
1936–37	97	98	97	97	99	96
1937–38	107	103	101	104	103	105
1938–39	96	99	102	99	98	99
1939–40	120	107	108	107	115	105
1940–41	74	109	107	97	115	91
1941–42	104	112	104	104	118	99
1942–43	97	114	103	102	116	98
1943–44	86	115	100	100	119	94
1944–45	68	101	99	88	101	84
1945–46	100	86	103	92	92	92
1946–47	84	92	103	91	95	90
1947–48	122	98	107	109	101	111
1948–49	108	105	111	109	108	109
1949–50	117	112	111	115	115	115
1950–51	108	109	106	109	116	107
1951–52	103	105	97	103	112	100
1952–53	121	126	108	121	131	118
1953–54	129	123	107	122	128	120
1954–55	120	127	117	123	132	120
1955–56	134	136	120	131	146	127
1956–57	120	148	117	131	164	121
1957–58	109	142	114	124	148	116
1958–59	165	159	119	149	164	145

(*a*) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years (*see* text preceding table).

3. **Farm Products for Food Use: Indexes of Quantum (i.e. Value at Constant Prices) of Production, Exports and Consumption.**—The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936–37 to 1938–39. The items included comprise products in the form in which they are sold from farms in all cases except live-stock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas. Particulars are not available prior to 1946–47 except for the base years.

**FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM^(a) OF
PRODUCTION, EXPORTS AND CONSUMPTION.**

(Base: Average 1936-37 to 1938-39 = 100.)

Year.	Production.		Exports.		Consumption in Australia.	
	Total.	Per Head of Total Population.	Total.	Per Head of Total Population.	Total.	Per Head of Total Population.
1948-49.. ..	110	97	112	99	111	98
1949-50.. ..	116	99	116	99	114	98
1950-51.. ..	109	90	104	86	120	99
1951-52.. ..	100	81	70	57	119	96
1952-53.. ..	118	93	113	89	119	94
1953-54.. ..	122	94	102	79	124	96
1954-55.. ..	121	91	117	89	127	96
1955-56.. ..	129	95	131	97	131	97
1956-57.. ..	123	88	118	85	137	98
1957-58.. ..	115	81	90	64	138	97
1958-59(b) ..	146	101	137	94	142	98

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years (1936-37 to 1938-39). (b) Subject to revision.

§ 3. Consumption of Foodstuffs and Beverages.

1. **Quantities Consumed.**—Issues of the Official Year Book up to No. 36 included a statistical survey of the movement in the consumption in Australia, in total and per head of population, of a selected number of commodities over a period of years up to 1940-41 (see Official Year Book No. 36, pp. 1098-1100). In issue No. 37, these long-term comparisons were replaced by more detailed information covering consumption of the principal foodstuffs and beverages in annual periods since 1944 in comparison with average annual consumption during the three years ended 1938-39. In this issue, the annual periods extend from 1954-55 to 1958-59.

The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from production and allowing for recorded movements in stocks of the respective commodities. While the estimates may be accepted generally as reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of poultry, game and fish (fresh and shell) and the quantities of visible oils and other fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc., which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases, careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at "producer" level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years, wastage of foodstuffs has possibly been less than hitherto because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by an increase in the aforesaid production by householders for their own requirements. Neither of these factors has been taken into account, and it is possible that, as a result, some understatement has occurred in the following consumption estimates. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made, it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. Allowance has

not been made for the purchase of foodstuffs for dispatch overseas as gifts in bulk and by parcel post. These deficiencies, however, do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been checked, wherever possible, with data from other sources (principally from the Food Consumption Survey conducted in 1944 by the Nutrition Committee of the National Health and Medical Research Council) which confirm the reliability of the methods used.

More detailed information on the consumption of foodstuffs and beverages is contained in the Statistical Bulletin: *Food Production and the Consumption of Foodstuffs and Nutrients in Australia*, issued by this Bureau.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA.

Commodity.	Unit of Quantity.	Average 1936-37 to 1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59. (a)
Milk and Milk Products—							
Fluid Whole Milk	Mill. gals.	161	258	266	272	275	281
Fresh Cream	'000 tons	19.7	8.1	8.3	8.5	8.7	8.9
Full Cream Milk Products—							
Condensed, Concentrated and Evaporated Full Cream Milk—							
Sweetened	"	(b)	9.9	10.7	10.9	13.1	9.8
Unsweetened	"	(b)	17.0	23.7	26.3	28.1	27.4
Powdered Full Cream Milk	"	8.1	9.6	9.7	9.6	12.6	10.8
Infants and Invalids Foods	"	3.0	7.9	10.6	8.6	10.1	9.5
Milk By-Products—							
Condensed, Concentrated, and Evaporated Skim Milk and Butter-milk ..	"	(b)	6.1	3.9	4.7	7.3	4.9
Powdered Skim Milk ..	"	"	5.7	8.7	9.8	9.3	13.1
Cheese	"	13.4	25.4	23.9	22.5	29.5	23.9
<i>Total (in terms of Milk Solids)</i>	"	120.5	192.2	200.5	205.2	216.2	215.8
Meat—							
Beef (bone-in-weight) ..	"	442.0	472.6	495.4	548.8	544.2	522.2
Mutton (bone-in-weight) ..	"	183.4	211.5	204.2	199.2	220.7	244.9
Lamb (bone-in-weight) ..	"	46.1	105.6	109.1	117.8	123.5	141.7
Pork (bone-in-weight) ..	"	31.8	41.4	40.3	36.9	47.2	47.6
Offal	"	25.7	43.5	42.3	44.4	51.3	53.4
Canned Meat (canned weight)	"	(c)	12.4	14.3	13.2	19.5	21.0
Bacon and Ham (cured weight)	"	31.4	32.2	31.3	28.9	30.3	31.7
<i>Total (in terms of carcass weight)</i>	"	776.1	939.9	963.2	1,010.6	1,064.0	1,087.8
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight)	"	29.8	61.4	63.0	64.4	65.9	67.3
Fish(d)—							
Fresh—							
Australian origin	"	19.7	{ 13.7	12.4	14.3	13.4	13.8
Imported	"	"	{ 7.5	7.8	7.6	9.4	10.0
Cured (including Smoked and Salted)	"	(e)	4.0	4.4	2.2	5.5	3.6
Crustaceans and Molluscs	"	2.1	4.6	3.9	3.8	3.4	4.1
Canned—Australian origin	"	"	2.5	2.5	3.5	3.0	3.8
Imported	"	12.4	8.8	10.3	7.1	7.8	7.4
<i>Total(d)</i>	"	51.5	76.5	77.7	75.7	80.7	81.5
Eggs and Egg Products—							
Shell Eggs	"	78.7	85.9	87.9	91.7	91.4	93.3
Liquid Whole Egg(f) ..	"	2.9	6.5	4.9	6.1	5.3	5.6
Egg Powder(f)	"	"	0.1	0.2	0.3	0.1	0.3
<i>Total (Shell Egg equivalent)</i>	Mill. Doz.	81.6 139.3	92.5 157.9	93.0 158.8	98.1 167.4	96.8 165.2	99.2 169.3
Fats and Oils—							
Butter	'000 tons	101.0	122.5	120.4	119.4	120.8	115.1
Margarine—							
Table	"	2.8	9.1	12.3	15.4	15.7	15.4
Other	"	12.2	22.0	19.2	19.9	21.0	23.3
Lard	"	5.2	5.1	4.8	4.6	5.3	5.5
Vegetable Oils and Other Fats	"	14.4	16.2	16.6	17.0	17.4	17.8
<i>Total (Fat Content)</i>	"	115.5	148.8	147.5	150.2	153.8	151.3

See next page for notes.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA—*continued*.

Commodity.	Unit of Quantity.	Average 1936-37 to 1938-39.	1954-55	1955-56.	1956-57.	1957-58.	1958-59. (a)
Sugar and Syrups—							
Refined Sugar—							
As Sugar	'000 tons	216.5	256.3	259.5	257.8	259.1	275.2
In manufactured products ..	"	110.1	205.9	219.4	220.1	231.0	223.7
Honey, Glucose and Syrups ..	"	21.9	22.3	21.0	30.2	26.2	29.7
<i>Total (Sugar Content) ..</i>	"	<i>343.9</i>	<i>480.0</i>	<i>495.7</i>	<i>501.8</i>	<i>511.0</i>	<i>522.6</i>
Potatoes							
White	"	318.5	417.1	368.9	458.6	514.4	516.1
Sweet	"	7.4	5.7	5.8	5.9	6.1	6.2
<i>Total</i>	"	<i>325.9</i>	<i>422.8</i>	<i>374.7</i>	<i>464.5</i>	<i>520.5</i>	<i>522.3</i>
Pulse and Nuts—							
Dried Pulse	"	4.5	11.5	12.2	13.9	8.9	10.2
Peanuts (weight without shell)	"	2.8	9.9	4.2	2.8	10.4	13.8
Edible Tree Nuts (weight without shell) ..	"	2.6	7.7	5.7	6.0	7.0	7.2
Cocoa (Raw Beans) ..	"	6.3	9.8	10.7	12.4	11.7	11.3
<i>Total</i>	"	<i>16.2</i>	<i>38.9</i>	<i>32.8</i>	<i>35.1</i>	<i>38.0</i>	<i>42.5</i>
Tomatoes and Fruit—							
Tomatoes(g)	"	(h) 48.0	104.0	107.3	137.5	113.1	125.5
Citrus Fruit(g)	"	97.8	143.6	167.9	160.7	153.2	150.6
Other Fresh Fruit	"	288.2	306.7	371.1	302.7	352.4	354.7
Jams	"	35.1	37.5	40.4	41.4	34.5	36.5
Dried Fruit	"	24.8	32.0	22.6	22.2	30.9	22.5
Canned Fruit	"	31.9	56.3	57.5	56.8	63.9	55.8
<i>Total (Fresh Fruit equivalent)</i>	"	<i>580.3</i>	<i>766.1</i>	<i>830.4</i>	<i>779.4</i>	<i>841.8</i>	<i>803.9</i>
Vegetables—							
Leafy, Green and Yellow Vegetables	"	(b)	168.4	172.4	194.9	189.6	197.1
Other Fresh Vegetables	"	(b)	237.4	235.3	270.2	292.5	273.0
Canned Vegetables	"	(b)	20.1	20.9	25.7	22.3	22.8
<i>Total</i>	"	<i>(b)</i>	<i>425.9</i>	<i>428.6</i>	<i>490.8</i>	<i>504.4</i>	<i>492.9</i>
Grain Products							
Flour—							
White	"	574.0	721.8	727.9	762.1	788.5	787.4
Sharps	"		1.6	1.9	1.5		
Wheatmeal for baking	"	(i) 32.5	29.4	28.1	27.8	58.2	54.3
Breakfast Foods	"		52.9	54.8	61.8		
Rice (Milled)	"	12.2	14.2	15.4	15.8	16.1	16.4
Tapioca, Sago, etc.	"	3.7	1.4	1.6	1.2	1.9	1.0
Pearl Barley	"	3.0	2.2	2.0	2.1	1.9	1.9
Barley Meal and Polished	"						
Wheat (Rice substitute)	"		0.8	0.6	0.6	0.5	0.5
Edible Starch (Cornflour)	"	4.3	3.4	3.5	3.3	2.5	2.2
<i>Total</i>	"	<i>629.7</i>	<i>827.7</i>	<i>835.8</i>	<i>876.2</i>	<i>869.6</i>	<i>863.7</i>
Beverages—							
Tea	"	21.1	24.3	24.5	26.2	26.1	26.0
Coffee	"	2.0	4.5	5.5	6.7	6.6	8.9
Beer	Mil. gals.	80.1	220.5	225.1	218.1	224.1	220.7
Wine	"	4.2	10.1	10.3	10.9	11.1	11.4

(a) Subject to revision. (b) Not available. (c) Included with fresh meat at its carcass weight. (d) Edible weight. (e) Included with fresh. (f) In terms of weight of shell eggs. (g) Includes fresh equivalent of manufactured products. (h) Probably understated owing to lack of complete data. (i) Excludes invalid and health foods, semolina and wheat germ.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR
CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA.**

Commodity.	Unit of Quantity.	Average 1936-37 to 1938-39.	1954-55.	1955-56.	1956-57	1957-58.	1958-59. (a)
Milk and Milk Products—							
Fluid Whole Milk ..	Gallon	23.4	28.4	28.5	28.5	28.2	28.2
Fresh Cream ..	lb.	6.4	2.0	2.0	2.0	2.0	2.0
Full Cream Milk Products—							
Condensed, Concentrated and Evaporated Full Cream Milk—							
Sweetened ..	"	(b)	2.4	2.6	2.6	3.0	2.2
Unsweetened ..	"	(b)	4.2	5.7	6.2	6.5	6.2
Powdered Full Cream Milk ..	"	2.6	2.4	2.3	2.2	2.9	2.4
Infants and Invalids Foods ..	"	1.0	1.9	2.6	2.0	2.3	2.1
Milk By-Products—							
Condensed, Concentrated and Evaporated Skim Milk and Butter-milk ..	"	(b)	1.5	0.9	1.1	1.7	1.1
Powdered Skim Milk ..	"	"	1.4	2.1	2.4	2.1	2.9
Cheese ..	"	4.4	6.3	5.7	5.3	6.8	5.4
<i>Total (in terms of Milk Solids) ..</i>	"	39.3	47.5	48.2	48.2	49.6	48.5
Meat—							
Beef (bone-in-weight) ..	"	144.1	116.5	119.1	128.9	125.1	117.5
Mutton (bone-in-weight) ..	"	59.8	52.1	49.1	46.8	50.7	55.1
Lamb (bone-in-weight) ..	"	15.0	26.0	26.2	27.7	28.4	31.9
Pork (bone-in-weight) ..	"	10.4	10.2	9.7	8.7	10.9	10.7
Offal ..	"	8.4	10.7	10.2	10.4	11.8	12.0
Canned Meat (canned weight) ..	"	(c)	3.0	3.4	3.1	4.5	4.7
Bacon and Ham (cured weight) ..	"	10.2	7.9	7.5	6.8	7.0	7.1
<i>Total (in terms of carcass weight) ..</i>	"	253.0	231.6	231.6	237.4	244.4	244.8
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight) ..	"	9.7	15.1	15.1	15.1	15.1	15.1
Fish(d)—							
Fresh—							
Australian origin ..	"	} 6.4	3.4	3.0	3.3	3.1	3.1
Imported ..	"		1.8	1.9	1.8	2.2	2.2
Cured (including Smoked and Salted) ..	"	(e)	1.0	1.1	0.5	1.3	0.8
Crustaceans and Molluscs ..	"	0.7	1.2	1.0	0.9	0.8	0.9
Canned—							
Australian origin ..	"	} 4.1	0.6	0.6	0.8	0.7	0.9
Imported ..	"		2.2	2.5	1.7	1.8	1.7
<i>Total(d) ..</i>	"	16.8	19.0	18.9	17.8	18.7	18.4
Eggs and Egg Products—							
Shell Eggs ..	"	25.7	21.2	21.1	21.5	21.0	21.0
Liquid Whole Egg(f) ..	"	0.9	1.6	1.2	1.4	1.2	1.3
Egg Powder(f) ..	"	"	0.0	0.1	0.1	"	0.0
<i>Total (Shell Egg equivalent) ..</i>	} No.	26.6 243	22.8 209	22.4 205	23.0 210	22.2 203	22.3 204
Fats and Oils—							
Butter ..	lb.	32.9	30.2	29.0	28.0	27.8	25.9
Margarine—							
Table ..	"	0.9	2.3	3.0	3.6	3.6	3.5
Other ..	"	4.0	5.4	4.6	4.7	4.8	5.3
Lard ..	"	1.7	1.3	1.2	1.1	1.2	1.2
Vegetable Oils and other Fats ..	"	4.7	4.0	4.0	4.0	4.0	4.0
<i>Total (Fat Content) ..</i>	"	37.6	36.8	35.6	35.3	35.3	34.0
Sugar and Syrups—							
Refined Sugar—							
As Sugar ..	"	70.6	63.2	62.4	60.6	59.5	62.0
In manufactured products ..	"	35.9	50.7	52.7	51.7	53.1	50.3
Honey, Glucose and Syrups ..	"	7.1	5.5	5.1	7.0	6.0	6.6
<i>Total (Sugar Content) ..</i>	"	112.0	118.3	119.1	117.9	117.3	117.5

See next page for notes.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE
FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION:
AUSTRALIA—continued.**

Commodity.	Unit of Quantity.	Average 1936-37 to 1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59. (a)
Potatoes—							
White	lb.	103.8	102.8	88.7	107.7	118.2	116.2
Sweet	"	2.4	1.4	1.4	1.4	1.4	1.4
Total	"	106.2	104.2	90.1	109.1	119.6	117.6
Pulse and Nuts—							
Dried Pulse	"	1.5	2.8	3.0	3.3	2.1	2.3
Peanuts (weight without shell)	"	0.9	2.4	1.0	0.7	2.4	3.1
Edible Tree Nuts (weight without shell)	"	0.8	1.9	1.4	1.4	1.6	1.6
Cocoa (Raw Beans) ..	"	2.1	2.4	2.6	2.9	2.7	2.5
Total	"	5.3	9.5	8.0	8.3	8.8	9.5
Tomatoes and Fruit—							
Tomatoes (g)	"	(h) 15.7	25.6	25.8	32.3	26.0	28.3
Citrus Fruit (g) ..	"	31.9	35.4	40.4	37.8	35.2	33.9
Other Fresh Fruit ..	"	94.0	75.6	89.2	71.1	81.0	79.8
Jams	"	11.4	9.2	9.7	9.7	7.9	8.2
Dried Fruit	"	8.1	7.9	5.4	5.2	7.1	4.8
Canned Fruit	"	10.7	13.9	13.8	13.4	14.7	12.6
Total (Fresh Fruit equivalent)	"	189.2	188.8	199.6	183.1	193.5	180.9
Vegetables—							
Leafy, Green and Yellow Vegetables	"	(b)	41.5	41.5	45.8	43.6	44.3
Other Fresh Vegetables ..	"	(b)	58.6	54.7	63.5	67.2	61.4
Canned Vegetables ..	"	(b)	4.9	5.0	6.0	5.1	5.1
Total	"	(b)	105.0	101.2	115.3	115.9	110.8
Grain Products—							
Flour—							
White	"	187.1	177.9	175.0	179.0	181.2	177.2
Sharps	"						
Wheatmeal for baking ..	"						
Breakfast Foods	"	(i) 10.6	13.0	13.2	14.5	13.3	12.2
Rice (milled)	"	4.0	3.5	3.7	3.7	3.7	3.7
Tapioca, Sago, etc. ..	"	1.2	0.3	0.4	0.3	0.4	0.2
Pearl Barley	"	1.0	0.5	0.5	0.5	0.4	0.4
Barley Meal and Polished Wheat (Rice substitute) ..	"	..	0.2	0.1	0.1	0.1	0.1
Edible Starch (Cornflour) ..	"	1.4	0.9	0.8	0.8	0.6	0.5
Total	"	205.3	203.9	201.0	205.8	199.7	194.3
Beverages—							
Tea	"	6.9	6.0	5.9	6.2	6.0	5.8
Coffee	"	0.6	1.1	1.3	1.6	1.5	2.0
Beer	Gallon	11.7	24.3	24.2	22.9	23.0	22.2
Wine	"	0.6	1.1	1.1	1.2	1.1	1.1

(a) Subject to revision. (b) Not available. (c) Included with fresh meat at its carcass weight. (d) Edible weight. (e) Included with fresh. (f) In terms of weight of shell eggs. (g) Includes fresh equivalent of manufactured products. (h) Probably understated owing to lack of complete data. (i) Excludes invalid and health foods, semolina and wheat germ.

2. **Level of Nutrient Intake.**—The table below shows details of the estimated supplies of nutrients available for consumption in Australia during annual periods since 1954-55 in comparison with the annual average for the three years 1936-37 to 1938-39. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION:
AUSTRALIA.

(Per Head per Day.)

Nutrient.	Unit.	Average 1936-37 to 1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59. (a)
Calories	No.	3,117	3,296	3,276	3,291	3,307	3,294
Protein—							
Animal	gm.	58.7	56.8	56.8	59.1	59.3	60.3
Vegetable ..	..	30.9	33.1	31.3	32.5	32.2	32.3
Total .. ..	..	89.6	89.9	88.1	91.6	91.5	92.6
Fat .. ..	..	133.5	133.1	131.4	130.3	131.4	133.4
Carbohydrate ..	..	377.4	416.1	413.9	418.6	419.6	412.0
Calcium	mgm.	642	758	782	806	827	818
Iron .. ..	..	15.4	13.9	13.2	13.9	13.9	14.1
Vitamin A	I.U.	8,457	7,084	7,047	7,652	7,937	7,501
Ascorbic Acid ..	mgm.	86	83	83	89	89	88
Thiamin .. ..	..	1.4	1.3	1.2	1.2	1.3	1.3
Riboflavin .. ..	..	1.7	1.7	1.7	1.7	1.8	1.8
Niacin .. ..	..	18.7	18.5	17.6	18.3	18.4	19.0

(a) Subject to revision.

NOTE.—The conversion factors used are based on factors contained in the “*Table of Composition of Australian Foods*” (Anita Osmond and Winifred Wilson, Canberra, 1954).

§ 4. Patents, Trade Marks and Designs.

1. **Patents.**—(i) *General.* Patents for inventions are granted under the Patents Act 1952–1955, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The Act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to £17 10s. Renewal fees are payable as follows:—£5 before the expiration of the fourth year, and an amount progressively increasing by £1 before the expiration of each succeeding year up to the final fee of £16, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained. Patents granted under the repealed Acts (Patents Act 1903–1950) are subject to the renewal fees under those Acts.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed and the number of letters patent sealed during the years 1955 to 1959 are shown in the following table.

PATENTS : AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
Applications	8,869	9,396	9,899	10,511	11,430
Applications accompanied by provisional specifications ..	3,220	3,465	3,683	3,919	4,063
Letters patent sealed	5,931	6,056	6,407	6,093	5,488

2. **Trade Marks and Designs.**—(i) *Trade Marks.* Under the Trade Marks Act 1955–1958 the Commissioner of Patents is also Registrar of Trade Marks. This Act has replaced the Trade Marks Act 1905–1948.

Provision is made for the registration of users of Trade Marks and for their assignment with or without the goodwill of the business concerned.

A new classification of goods has been adopted and Trade Marks registered under the repealed Acts are reclassified on renewal.

(ii) *Designs.* Under the Designs Act 1906–1950, the Commissioner of Patents is also Registrar of Designs.

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1955 to 1959.

TRADE MARKS AND DESIGNS : AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
Trade Marks—					
Received	4,630	4,402	4,589	5,331	5,436
Registered	1,848	5,360	3,569	4,219	3,792
Designs—					
Received	1,330	1,130	1,394	1,362	1,366
Registered	819	458	917	1,758	819

3. *Revenue.*—Revenue of the Commonwealth Patent, Trade Marks, Design and Copyright Offices for the years 1955 to 1959 was as follows:—1955, £234,125; 1956, £293,918; 1957, £302,279; 1958, £347,659; 1959, £348,523.

§ 5. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act 1912–1950 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian Law. The Act is administered by the Commissioner of Patents.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. *Applications and Registrations.*—The following table shows under the various headings the number of applications for copyright received and registered for the years 1955 to 1959.

COPYRIGHT : AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
Applications received—					
Literary	1,005	1,059	1,064	1,078	1,153
Artistic	17	22	38	74	65
International .. ..	..	..	..	..	..
Applications registered—					
Literary	869	521	870	1,100	1,038
Artistic	12	17	26	38	47
International .. ..	..	..	..	..	..

§ 6. Australian Shipbuilding Board.

1. *Constitution.*—Originally established in 1941 under National Security Regulations, the Board has been reconstituted a number of times since its inception and in 1948 was constituted on a permanent basis under the Supply and Development Act. At present, it operates under the control of the Minister for Shipping and Transport. The membership of the Board consists of a Chairman, who is the General Manager, a Deputy Chairman, a Finance Member and two other members, one of whom represents the Naval Board.

2. Functions.—The existing functions of the Board which have been summarized in earlier issues of the Official Year Book, are set out in detail in regulation 22 (4) of the Supply and Development Regulations.

In April, 1960, the Government announced that legislation was to be introduced to re-define the Board's functions in the light of the acceptance by the Government of recommendations by the Tariff Board for continued Commonwealth assistance to the Australian shipbuilding industry. It is expected that the legislation will be introduced to Parliament at an early date.

At the same time, the Government decided that the present temporary staff organization, which has been carried on since establishment of the Board in 1941, would be replaced by a permanent organization. This would mean that superannuation and similar Public Service benefits would be available to members of the staff.

In the exercise of its functions, the Board is responsible for—(i) the design of vessels; (ii) the calling of tenders and placement of orders; (iii) co-ordination of the Board's supplies to shipbuilders, e.g., machinery and certain equipment; (iv) supervision of construction; (v) acceptance of vessels after sea trials; and (vi) administration associated with ship repairs, marine engines, spare parts, etc.

The Board is also responsible for recommending, within the limits prescribed by the Commonwealth Government, the amount of subsidy to be paid on merchant ships constructed in Australia. In April 1956, the Government accepted a recommendation made by the Tariff Board that the maximum subsidy on ships built in Australia for the coastal trade should be increased from 25 per cent. to 33½ per cent. of the cost of construction. The method and level of assistance to the industry was again re-examined by the Tariff Board following the public hearings during November and December, 1958, and as a result of its examination, the Tariff Board recommended, and the Government accepted, that the present method of assistance to the shipbuilding industry be retained and the maximum rate of subsidy remain at 33½ per cent. of the cost of construction.

In order to take advantage of the subsidy, private shipowners are required to place their orders for vessels through the Board, which has thus become the ordering authority for all vessels built in Australian yards on which a subsidy is paid.

The Board has also undertaken the preparation of plans and drawings for most of the yards, as the level of ship construction in Australia does not warrant each yard employing specialists in naval architecture. In this way, the Board has assisted in raising the efficiency of the industry as a whole and also in the development of individual yards. (For a more detailed reference to the constitution and functions of the Board *see* Official Year Book No. 37, p. 1170).

In order to assist the shipbuilding industry further, the Board has also encouraged the construction of marine engines in Australia including steam engines and several well known types of diesel engines manufactured under licence. The larger marine diesel engines under construction at 1st May, 1960, were three "Doxford" type, two of 5,500 b.h.p. and one of 4,400 b.h.p., and one "Polar" type of 1,310 b.h.p.

3. Construction Programme.—From its inception to 1st May, 1960, the Board had arranged for the construction of 65 vessels of over 300 gross tons and totalling 395,151 tons deadweight. During the war, the Board was also responsible for the construction of numerous small craft and a 1,000 ton floating dock.

Current orders at 1st May, 1960, placed by the Board, were for the construction of 10 vessels totalling 119,150 deadweight tons. The vessels consisted of one 32,250 d.w.t. oil tanker on behalf of Ampol Petroleum Ltd., one bulk ore carrier of 19,000 d.w.t. on behalf of the Broken Hill Pty. Co. Ltd., two bulk ore carriers each of 16,400 d.w.t. on behalf of Bulkships Ltd., one 2,500 d.w.t. passenger/cargo vessel for the State Shipping Service of Western Australia, one 2,000 d.w.t. container vessel for Wm. Holyman & Sons Pty. Ltd., one 850 d.w.t. roll-on roll-off passenger/cargo ferry for the Adelaide Steamship Co. Ltd., together with two bulk carriers of 14,000 d.w.t. each, and one roll-on roll-off cargo ferry of 1,750 d.w.t. all for the Australian National Line.

In addition, orders have been placed by the Board for one 90 foot general purpose vessel for the Department of the Navy and two 70 foot landing craft for the Department of the Army.

§ 7. Commonwealth Scientific and Industrial Research Organization.

1. **General.**—By the Science and Industry Research Act 1949, the previously existing Commonwealth Council for Scientific and Industrial Research was re-organized under the title of the Commonwealth Scientific and Industrial Research Organization. An account of the organization and work of the former Council, and of the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the Official Year Book. (*See* No. 14, p. 1061 and No. 37, p. 1183.)

2. **Science and Industry Research Act 1949-1959.**—This Act provides for—

- (a) an Executive of the Organization consisting of nine members to be appointed by the Governor-General, at least five of whom shall be persons possessing scientific qualifications; and
- (b) an Advisory Council of the Organization, consisting of the members of the Executive, the Chairman of each State Committee constituted under the Act, and such other members as the Advisory Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The powers and functions of the Organization are as follows:—(a) To initiate and carry out scientific research in connexion with primary or secondary industries in Australia; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish and make grants to industrial research associations in any industry; (e) to test and standardize scientific apparatus and instruments; (f) to collect and disseminate scientific and technical information; (g) to publish scientific and technical reports and periodicals; and (h) to act as a means of liaison between Australia and other countries in matters of scientific research.

3. **Science and Industry Endowment Act 1926-1949.**—Under this Act, the Government established a fund of £100,000, the income from which is used to provide assistance (a) to persons engaged in scientific research; and (b) in the training of students in scientific research. Provision is made for gifts or bequests to the fund which is controlled by a trust consisting of the Executive of the Organization. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Organization.**—The activities of the Commonwealth Scientific and Industrial Research Organization have necessitated a widespread and adaptable arrangement of its research laboratories. Undesirable centralization has been avoided mainly in two ways. In the first place, the policy has been followed of establishing laboratories in different places in the Commonwealth wherever the necessary facilities, contacts and other suitable conditions could best be found. Secondly, the Act provides for the establishment of a State Committee in each of the six States. These Committees are widely representative of scientific and industrial interests, and advise the Executive or the Advisory Council on general matters and on particular questions of investigation and research.

For about twelve years after its establishment, the work of the previous Council was devoted mainly to the solution of problems affecting the agricultural and pastoral industries. Unlike manufacturing concerns, which often employ their own scientific staffs, the farmers and the pastoralists are dependent on outside help for the solution of their problems which require research. It was a recognition of the greater need of the primary producer which directed the Council's early policy. In 1937, however, the Commonwealth Government decided to extend the activities of the C.S.I.R. so as to provide assistance to secondary industries, and several laboratories have been established for work in that field; it was thus in the fortunate position of being able to render to these industries assistance of vital importance almost immediately after the outbreak of war. In fact, the remarkable technological advances and developments in secondary industrial production during the war would have been to a large extent impossible had it not been for the assistance rendered by scientific research, and this may well serve as a forceful illustration of what may be accomplished in times of peace.

For the purpose of carrying out its research work, there are established within the Organization a number of Divisions and Sections. The Divisions, of which there are now twenty-five comprise the major establishments for which special laboratory buildings have been erected and equipped; the Sections generally include establishments which have not reached a stage of development, so far as the scope and magnitude of their operations are concerned, to justify their designation as Divisions. As the Organization's investigations

extend on a Commonwealth-wide basis and as many of the investigations which are being conducted—particularly those concerned with problems affecting the agricultural and pastoral industries—necessitate experimental work in the field, a number of field stations are established in various parts of Australia.

The Divisions which have been established are as follows:—

- Plant Industry, with main laboratories at Canberra and Brisbane and field stations.
- Entomology, with main laboratories at Canberra and field stations.
- Animal Health (main laboratory in Melbourne), Animal Genetics (main laboratory in Sydney) and Animal Physiology (main laboratory in Sydney) which together comprise the Animal Research Laboratories.
- Biochemistry and General Nutrition, with main laboratories at Adelaide and field stations.
- Soils, with main laboratories at Adelaide and extensive operations in the field.
- Forest Products, with main laboratories in Melbourne and field experiments.
- Food Preservation and Transport, with main laboratories at Homebush (New South Wales) and a subsidiary laboratory in Brisbane.
- Fisheries and Oceanography, with main laboratories at Cronulla (New South Wales), subsidiary laboratory at Thursday Island, and experimental work in coastal waters of Australia.
- Metrology, Physics and Electrotechnology, comprising the National Standards Laboratory at Sydney.
- Radiophysics, with main laboratory at Sydney.
- Physical Chemistry, Chemical Physics and Mineral Chemistry, which together with the Sections of Organic Chemistry, Cement and Ceramics and Chemical Engineering, comprise the Chemical Research Laboratories in Melbourne.
- Tribophysics, with laboratories in Melbourne.
- Building Research, with laboratories in Melbourne.
- Mathematical Statistics, with main laboratory in Adelaide.
- Meteorological Physics, with main laboratory in Melbourne and field station.
- Land Research and Regional Survey, with headquarters in Canberra, and field stations at Alice Springs and Katherine (Northern Territory) and Ivanhoe (Kimberley, Western Australia).
- Protein Chemistry (Melbourne), Textile Industry (Geelong, Victoria) and Textile Physics (Sydney), which together comprise the Wool Research Laboratories.

The following are the Sections:—

- Commonwealth Research Station, Murray Irrigation Area, Merbein (Victoria).
- Irrigation Research Station, Griffith (New South Wales).
- Upper Atmosphere, with laboratory at Camden (New South Wales).
- Dairy Research, Melbourne.
- Mineragraphic Investigations, Melbourne.
- Ore-dressing Investigations, Melbourne and Kalgoorlie.
- Fodder Conservation, Melbourne.
- Physical Metallurgy, Melbourne.
- Wool Textile Research Laboratories, Geelong, Melbourne and Sydney.
- Coal Research, Sydney.
- Wildlife Survey, with main laboratory in Canberra, subsidiary laboratory at Albury, and field experiments.
- Soil Mechanics, Melbourne.
- Engineering, Melbourne.
- Agricultural Research Liaison Section, Melbourne.
- Industrial Research Liaison Section, Melbourne.
- Editorial and Publications Section, Melbourne.

In addition to its investigational work, the Organization deals with inquiries covering a wide range of scientific and technical subjects and maintains Scientific Liaison Offices in London and Washington.

An Agricultural Research Liaison Section established at the Organization's Head Office assists in making results in agricultural research speedily available to State Departments of Agriculture for use in their extension work.

An Industrial Research Liaison Section has also been established at Head Office to foster liaison in the secondary and manufacturing fields.

The Organization's Head Office, with administrative and executive staff, is in Melbourne, and associated with it are the Organization's Central Library, Agricultural Research Liaison Section, Industrial Research Liaison Section and Editorial and Publications Section. The funds for the Organization are provided from two main sources, namely, from Commonwealth revenue by Parliamentary appropriation, and from industry directly or indirectly by way of contributions and special grants. The fact that contributions and grants account for over one-eighth of the total annual expenditure indicates that the C.S.I.R.O. has succeeded in a very large measure in gaining the confidence of the public.

The activities of the C.S.I.R.O. are now so comprehensive in their scope and so widely distributed that it is not an easy matter to present an adequate picture of them in a concise form. For details of the investigations in progress, reference should be made to the Annual Report of the Organization.

§ 8. Mount Stromlo Observatory.

Mount Stromlo Observatory—since 1957 incorporated into the Australian National University—is the largest observatory of the southern hemisphere. In its instrumental resources, it is second only to some of the great observatories of America. Since it is located south of the Equator, it is placed especially advantageously for the conduct of research into the structure of the Milky Way System and of the Star Clouds of Magellan. The telescopes and auxiliary equipment at the Observatory provide access to parts of the sky that are forever hidden from the view of northern hemisphere astronomers. Mount Stromlo astronomers have therefore a special responsibility to do research on stars and other celestial objects at far southern declinations.

Mount Stromlo Observatory is in effect the Department of Astronomy of the Australian National University and its staff members have therefore the two-fold assignment of carrying out their personal researches and of assisting in the training of the future astronomers of Australia.

Mount Stromlo is a ridge of hills, approximately one mile long, situated at 35° 19' 16" South Latitude and 149° 0' 20" East Longitude, seven miles west of the city of Canberra. Its highest point is about 2,560 feet above sea level, which means that the mountain top is 700 feet above the surrounding countryside. Mount Stromlo is the highest easily accessible point in the vicinity of Canberra which is well screened from the lights of the city. The view from the top of Mount Stromlo is one of the finest in the Australian Capital Territory.

The first permanent installation on the site was established in 1911, but, because of the war and other circumstances, the development of the Observatory was delayed. It was only in 1925 that regular astronomical work could be undertaken, at which time the Oddie Telescope came into regular use. The first Director and Founder of the Observatory was Dr. W. B. Duffield, who, unfortunately, died in 1929 at the early age of 50 years. Following an interval with Mr. W. B. Rimmer as Officer-in-Charge, the second Director, Dr. Richard van der Riet Woolley, arrived late in 1939 and he left his post in 1956 to become Her Majesty's Astronomer Royal at the Royal Greenwich Observatory at Herstmonceux. During 1956, Dr. A. R. Hogg was Acting Director and in 1957 the third and present Director, Dr. Bart J. Bok, took up office.

Not counting the foreign visitors, the scientific staff of Mount Stromlo Observatory consists of twelve astronomers and five Scholars in residence. Taking into account the technical, clerical and maintenance personnel, the total staff list comes to approximately sixty persons.

Mount Stromlo Observatory possesses eight telescopes with apertures ranging from five inches for the Zeiss Camera mounted on the side of the Oddie Telescope to 74 inches for the Giant Reflector, one of the two largest of the southern hemisphere. In addition to the major telescopes, there are two instruments which assist the Time Service in its work and two oversea groups have major telescopes on the Observatory grounds. The Yale-Columbia Station, maintained and operated by a special staff member appointed jointly by the Yale and Columbia Observatories in America, has a 26-inch Refractor mounted at Mount Stromlo and the Upsala Observatory of Sweden maintains and operates its own 26-inch Schmidt Telescope, with a resident Swedish Observer.

The principal areas of research at Mount Stromlo are:—

(i) Studies of the structure and dynamics of the Milky Way system with special emphasis on evolutionary aspects of these problems. The observational data which are gathered are the magnitudes, colours, spectral types, and radial velocities of selected stars. Star clusters and variable stars receive much attention. Photographic and photoelectric techniques are blended in about equal proportions.

(ii) Comparable work on the Large and Small Magellanic Clouds, the two satellite systems of the Milky Way system which are the special responsibility of southern hemisphere astronomers.

(iii) Studies of the interstellar medium of gas and dust, its relation to the spiral structure of our galaxy, its physical properties—generally considered in conjunction with radio-astronomical data—and its evolutionary status.

(iv) Studies of the physics of the stars of the southern hemisphere by spectrographic means and by photoelectric techniques, the latter employing selected colour filters with narrow transmission bands. In these purely astrophysical researches, special attention is being given to supergiant stars, eclipsing variables, cepheid and RR Lyrae variables, planetary nebulae and white dwarfs.

(v) Mount Stromlo maintains the National Time Service, which operates currently a photographic zenith tube, a moon camera and a small transit instrument. The studies of the variable rotation of the earth and of the variation of latitude are the principal topics for research.

Mount Stromlo Observatory is at present engaged in a major expansion of equipment and staff. The principal projects that are already on the way toward completion are the following:—

(i) A major spectroscopic development is that of the construction of a Coudé Spectrograph for the 74-inch reflector. The spectrograph is housed in a newly-constructed pit, which goes to a depth of 28 feet underground in the rock surface at the end of the north pier of the 74-inch reflector. This instrument should open up the whole field of high-dispersion spectroscopy of the southern heavens.

(ii) A Nebular Spectrograph is under construction to permit spectrographic research on faint stars, nebulae and distant galaxies.

(iii) Much time and effort is being spent upon the improvement of photoelectric techniques and instrumentation, which should permit measurement with confidence of far fainter stars than have hitherto been observed in the southern sky. The research is to be combined in the future with applications of image converter tubes and other means for extending the photographic limits of the Mount Stromlo telescopes.

(iv) An IBM 610 Computer is now installed at the Observatory and it serves all research divisions.

(v) The observing and measuring equipment for the Mount Stromlo Time Service is undergoing a steady improvement and much attention is being given to the whole problem of digitation and automatization of telescopic and measuring equipment.

(vi) The programme of graduate education in astronomy is being gradually enlarged to provide for a total of 6 to 8 scholars at any one time, preferably with two from overseas included.

Mount Stromlo Observatory suffers from excessive cloudiness and plans are well on the way for the establishment of a permanent Field Station at a locality either in New South Wales or in Victoria with 50 per cent. to 60 per cent. of clear skies at night. Toward the end of 1959, the most promising site available (on top of Mount Bingar near Yenda and Griffith in New South Wales) was selected as the site for extensive testing, and it will serve as a Control Station for observations at other favoured sites. At Mount Bingar, there is at present in operation a 26-inch reflector, which is used primarily for photoelectric research and for the visual inspection of star images. The results to date at Mount Bingar have been quite pleasing and the site looks definitely promising, but it is still too early to tell how it will compare with the other sites selected for special study, near Condobolin and near Coonabarabran in New South Wales, and near Natimuk in Victoria. The next major instrument for the Observatory will be mounted at the Field Station—it will be in all probability a 40-inch reflector of modern design.

The Observatory has always prided itself on its visitors from overseas. At all times at least one and often two distinguished visitors from overseas are in residence at Mount Stromlo for purposes of scientific research; they generally stay for periods of six months to one year. The study leave provisions for the Australian National University permit staff members to go overseas periodically and thus remain in contact with the flow of

astronomical thought and new developments in instrumentation of importance for the future of the Observatory. Mount Stromlo astronomers play leading parts in the International Astronomical Union, which meets once every three years, and they are members of many Commissions of this Union.

Major research papers of the Observatory are published in monograph form as "Memoirs of the Mount Stromlo Observatory", a collection which is now in its third volume. On publication, these memoirs are immediately distributed to all observatories, astronomical institutions and other interested bodies of the world, and they are also deposited with the Commonwealth National Library and the universities of Australia. On an exchange basis, the Observatory Library receives many publications from overseas.

Shorter contributions are published in professional astronomical journals in Great Britain, the United States and Australia. Reprints of many of these papers are distributed in the same manner as are the Memoirs.

The Observatory caters for visitors according to a carefully arranged plan. Day-time visits without previous arrangement may be made on weekdays which are not holidays either at 11 a.m. or 3 p.m., and on Saturdays, Sundays and Public Holidays between 2 p.m. and 4.30 p.m., with the tours starting at half-hourly intervals (no scheduled morning tours on these days). It is more difficult for the Observatory to accommodate visitors at night, but there are some eight or nine special nights each year, with an attendance limited to 100, when the heavens may be viewed through several major telescopes. Groups of ten to fifteen persons may visit the Observatory for limited inspection on Wednesday evenings. Special arrangements must be made in advance for any one who wishes to visit the Observatory at night. No interference with the regular night-time observing can be tolerated on nights other than those listed. It may be of interest to note that during 1959 the number of day-time visitors ran to well over 15,000 and that at night approximately 1,700 people visited the Observatory. Mount Stromlo Observatory publishes a descriptive illustrated booklet as well as a set of photographic postcards.

Mount Stromlo Observatory is at present the major observatory in Australia, but it is by no means the only institution of its kind. The field of radio astronomy is covered by the Radiophysics Laboratory of the C.S.I.R.O. in Sydney which is recognized the world over as one of the finest institutions of this sort. The C.S.I.R.O. also maintains in Sydney an important Solar Physics Division, which is a part of the National Standards Laboratory. Other observatories in Australia are the century-old Sydney Observatory and the Observatory in Perth, both of which devote their time largely to the measurement of positions and motions of the stars.

Sooner or later, Australia will have to house, or build for itself, a really large telescope, say a reflector with an aperture of 120 inches. Before it can be decided where to put such an instrument, extensive studies of astronomical conditions for observation at night should be made on an Australia-wide basis. Mount Stromlo Observatory has undertaken the task of collecting such much-needed material. At twenty selected sites in Australia (in New South Wales, Victoria, South Australia and Western Australia) nightly observations are made of cloudiness, transparency of sky and the so-called scintillation (trembling) of the stars. Statistics of such observations give a first indication of the quality of each site and the present plan is to study the most promising sites further with relatively powerful test equipment, with the ultimate purpose of obtaining a clear indication where any future major telescope development in Australia should be made.

§ 9. Standards Association of Australia.

The Standards Association of Australia is the national standardizing organization of Australia, and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929, by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and industry. It was incorporated by Royal Charter in 1950.

The sole executive authority of the Association is vested in the Council, on which industry is fully represented, together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications

and codes by several thousand individuals who are experts in their particular fields, and are organized into some hundreds of committees. These committees are grouped under broad industry headings including civil engineering and building construction, mechanical engineering, electrical engineering, chemicals, timber, transportation, aircraft materials, ferrous and non-ferrous metallurgy, textiles, mining, ceramics, medical and dental materials, household and domestic economy and plastics.

These committees are comprised of nominated representatives of manufacturing, distributing and purchasing organizations, and of scientific and other expert authorities in the particular field of the project being dealt with. The operations of these committees are co-ordinated and supervised by committees broadly representative of the whole industry within which the respective projects are included.

The specifications of the Association provide a suitable standard of performance, quality and dimension and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Bibliographical research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries are answered each year.

The Association has international affiliations and the standards of all British and foreign countries are filed in the library and are accessible to members. It is a member, representing Australia, of the International Organization for Standardization (ISO). The Association also administers the Australian National Committees of the International Electrotechnical Commission and the International Commission on Large Dams.

The Association is also the representative of the British Standards Institution, and all British standards may be purchased from headquarters and branch offices in the various States.

The headquarters of the Association are at Science House, Gloucester Street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins Street, Melbourne; School of Arts Building, 166 Ann Street, Brisbane; Alliance Building, Grenfell Street, Adelaide; 10 Hooper Street, West Perth; c/o Engineering School, University of Tasmania, Sandy Bay; and Howard Smith Chambers, Watt Street, Newcastle.

§ 10. Industrial Design Council of Australia.

The Industrial Design Council of Australia was established in June, 1958, for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. The decision to set up the Council arose from a realization on the part of representatives of industry and government, designers and educationists, that there was a pressing need in Australia for an independent and authoritative body to promote better design in the interests of trade development.

The Council has a membership fully representative of industry, commerce and government, together with designers and educationists. Initial finance has been raised by donations from industry and commerce, and a grant of £10,000 has been made by the Commonwealth Government for establishment purposes.

The Council aims at assisting Australian industry in every possible way in the field of design. One of its first activities was a lecture series on product design, held in Sydney and Melbourne, and there has been a demand for further lectures on aspects of industrial design.

Other projects include the setting-up of a Design Index, providing a photographic catalogue of well-designed Australian goods, for reference by manufacturers, retailers, architects, designers and the public; a Register of Designers, providing a comprehensive reference to Australian designers to assist those seeking their services; Displays and exhibitions of well-designed goods, both local and overseas; Design Training, the council is aware of the urgent need to raise the standard of training in industrial design and will co-operate with education authorities to this end; Information services, it is intended to establish information offices in both Sydney and Melbourne, and later in other States, to provide information on all matters concerned with design.

The offices of the Council are in ICI House, 1 Nicholson Street, Melbourne, C.2.

§ 11. Film Censorship Board.

1. **Legislation.**—The Commonwealth Government's powers over censorship of films extend only to imported films and imported advertising matter and stem from the Customs Act. Under that Act, the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. Under those regulations, the Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. The Commonwealth Regulations give the Board no power to classify films.

Legislation passed by the State Governments of Victoria, Queensland, Western Australia and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or otherwise.

The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising matter made in Australia.

The Censorship organization comprises a Censorship Board of seven persons and an Appeal Censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

2. **Import of Films.**—(a) *35mm. Films for Exhibition in Motion Picture Theatres.* In 1959, 1,017 films comprising approximately 4½ million feet were censored. This represents approximately 812 hours' screening time. 483 of these films originated in the United States of America, 283 in the United Kingdom and 251 in other countries. Of the last-mentioned, U.S.S.R. 42, Germany 34, France 33, Italy 26, Greece 22, and China 13 were the principal suppliers.

Included in the above were 457 full-length feature films which constitute the main theatrical attractions. This was a decrease of 6 compared with the imports for 1958. Feature films came mainly from the United States of America 208, the United Kingdom 120, Germany 22, Greece 21, France 20, Italy 18, U.S.S.R. 18, and Japan 7.

Twenty feature films were rejected and cuts were made from 121, mainly because of excessive violence.

Feature films classified as suitable for general exhibition numbered 254 and 203 were not suitable for children. Of the latter, 29 carry the special condition that all advertising shall indicate that they are suitable only for adults. These classifications are advisory only and are designed to enable picture-goers and particularly parents to obtain a general idea of the nature of any particular film.

In addition to the above imported films, 201 35mm. films of 206,264 feet produced in Australia were cleared. These were mainly newsreels and documentaries and concerned the Board only when intended for commercial exhibition or export. This figure does not represent the total production in Australia.

(b) *16mm. Films.* The use of 16mm. films on television programmes has given this type of film a new and significant importance from the censorship standpoint.

In the past, 16mm. films were largely confined to those commercially produced for use in certain country picture theatres, in theatrettes used by business undertakings for advertising and instructional purposes, in churches, schools and universities, and on home movies. These are of all types—dramatic, scenic, topical, medical, advertising, educational, religious, etc.

Excluding those imported for television use, 4,440 16mm. films of approximately 4 million feet were examined. Three were rejected and eliminations were made from 62.

16mm. films imported for television are dealt with below (*see (d)).*

(c) *8mm. and 9.5mm. Films.* The Board's responsibilities in regard to these have been removed to a large extent following the decision to discontinue the censorship of films brought in by travellers depicting incidents during their travels. Periodical checks are made and only commercially produced films are examined. Of these, approximately 20,000 feet were censored. Two films were rejected.

(d) *Television Films.* 10,446 films, predominantly 16mm., of approximately 10½ million feet, for use on television were censored.

The number of films is not a true indication of volume because many of these were of very short duration. The footage, however, transposed to a time factor, shows that the screening time of films censored for television amounted to approximately 4,755 hours.

On a footage basis, the United States of America supplied approximately 90 per cent. of the total imports and the United Kingdom 8 per cent.

Forty-two television films were rejected outright and an additional 13 were classified as unsuitable for televising. Eliminations were made from 1,594. There were four appeals, two of which were successful.

(e) *Foreign Films.* Countries other than the United Kingdom and the United States of America supplied 251 of the 35mm. films imported for theatrical exhibition. Of these 129 were feature films.

Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary, and in isolated cases the dialogue is turned into English by the process known as "dubbing". The main countries of origin are shown above (see (a)).

Of 4,440 16mm. commercial films censored, 724 were of foreign origin. The chief supplying countries were Germany 92, France 80, Italy 57, India 33, Japan 29, China 29, Holland 29, and Switzerland 28.

An interpreter attends all censor screenings of films in a foreign language.

3. **Export of Films.**—The quantity of films exported for the year was approximately 1,800,000 feet. This footage includes, in many cases, several prints of the one film.

§ 12. Australian National Film Board and the Film Division.

1. **The Australian National Film Board.**—The Australian National Film Board was inaugurated in April, 1945, on the recommendations of a Commonwealth Government inter-departmental committee which considered the suggestions of a conference of interested individuals and Commonwealth and State officials, including Directors of Education, called in November, 1944, by the Ministers for Information and Post-war Reconstruction. It was attached, for administrative purposes, to the Department of Information.

With the abolition of the Department of Information in March, 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November, 1950, the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for the following purposes:—

- (a) for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration;
- (b) for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies and encourage immigration.

The constitution provides for a membership of ten, with the Secretary of the Department of the Interior, Chairman, the Director of the News and Information Bureau, Deputy Chairman, and the remainder representative of Commonwealth departments, State Government instrumentalities and organizations interested in the production, distribution or utilization of films for national publicity.

2. The Film Division of the News and Information Bureau.—The first Australian Government organization for the production of motion pictures for national publicity purposes was the Cinema and Photographic Branch of the Department of Commerce, set up in Melbourne in 1920. Early in the 1939–45 War, the newly-established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. Production and distribution of all films required by Commonwealth Departments is undertaken now by the staff of the Film Division, News and Information Bureau, Department of the Interior, or by commercial enterprises under the supervision of officers of the Film Division. Theatrical distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions are organized by the News and Information Bureau's home office or its oversea representatives. Non-theatrical distribution in Australia is organized through the National Library, Canberra, in co-operation with State film distribution agencies.

Since 1946, the Film Division has produced 367 films for general exhibition, as well as training and special purpose films. Prints are dispatched to 46 oversea centres, where distribution is arranged by News and Information Bureau officers or other Australian representatives. In Britain, there is regular distribution through more than a thousand theatres, and a large non-theatrical and educational series of circuits. By arrangement with the British Broadcasting Corporation, items of topical interest photographed by the Film Division are flown to London for television. In the United States of America, there is wide non-theatrical distribution and considerable use of the films by television networks. An exchange arrangement with the National Film Board of Canada secures extensive distribution in Canada. Selected films have been recorded in French, Dutch, German, Italian, Japanese, Hindustani, Tamil and other Indian dialects.

In addition to films made on the initiative of the News and Information Bureau, the Film Division produces films under the sponsorship of, or with the co-operation of, Commonwealth Departments and many other bodies such as the Commonwealth Bank of Australia, the Road Safety Council, Overseas Telecommunications Commission, Snowy Mountains Hydro-electric Authority, Australian Wine Board, the Australian National University and the Australian Broadcasting Commission.

The co-operation of the Australian motion picture industry with the Commonwealth, spontaneously offered at the outset of the 1939–45 War, continues. Special films for urgent national appeals are planned, produced and distributed, with the assistance of the National Films Council of the motion picture industry and its Film Production Advisory Committee.

§ 13. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 with the object of developing, mainly by education, safety in all spheres—on the road, in industry, in the home and on the farm.

In 1959, its work in industry was consolidated and developed by the formation of an Advisory Committee composed of leading industrialists with Australia-wide associations and in February, 1960, His Excellency the Governor of Victoria, General Sir Dallas Brooks, launched a five-year plan for industrial safety.

Under this plan, an Industrial Safety Service of four posters a month, slips for pay envelopes and the Council's bi-monthly journal, "Safety News", is available to industry by subscription. This service also provides advice on setting up safety programmes, information on safety problems, safety surveys of plants and work, safety instruction for foremen and technical library facilities.

Posters and other literature are distributed to schools in connexion with road safety lessons and special films are available for child and adult road safety instruction.

A "Safe Driving" campaign for individual motor drivers and a "Freedom from Accidents" campaign for employee drivers, are conducted and those completing a year free from any accident for which they were responsible are given a certificate or other award in recognition.

In 1959, the Council, with the co-operation of other interested organizations, launched a pilot School Driver Training course in two Melbourne schools, and in 1960 this was extended to eight schools.

The Council, a non-profit organization, is supported by Government grants, public subscriptions and payments for service. Its work is carried on by a small staff controlled by committees and governed by an executive.

The Road Safety Division, which handles all road safety matters, is the Victorian constituent of the Australian Road Safety Council.

§ 14. Australian Road Safety Council.

1. Origin and Organization.—The Australian Road Safety Council was formed in June, 1947, through the instrumentality of the Australian Transport Advisory Council.

The prime movers for the establishment of the Council were the Australian Automobile Association, which submitted a comprehensive plan; the New South Wales Minister for Transport, who advocated expansion, on a nation-wide basis, of road safety activities on lines similar to those of the Road Safety Council of New South Wales; and the National Safety Council of South Australia, which conveyed recommendations from a Special Safety Convention held in Adelaide in 1946.

At that time, in addition to the above-named organizations in New South Wales and South Australia, there were road safety organizations in Victoria and Western Australia. Steps were immediately taken to form Councils in Queensland and Tasmania, and subsequently in the Australian Capital Territory and the Northern Territory.

The Australian Road Safety Council is the composite body of Road Safety Councils of the following States and Territories of Australia:—

Governmental.—Queensland, Road Safety Council of Queensland; Tasmania, Road Safety Council of Tasmania; the Australian Capital Territory; Road Safety Council of the Australian Capital Territory.

Non-Governmental.—New South Wales, Road Safety Council of New South Wales; Victoria, Road Safety Division, National Safety Council of Australia; South Australia, Road Safety Division, National Safety Council of South Australia; Western Australia, Road Safety Division, National Safety Council of Western Australia; Northern Territory, Northern Territory Road Safety Council.

The Council is representative, geographically and technically, of the whole Commonwealth and comprises nominees of practically all classes of road users, together with representatives of road transport, the Department of the Army (representing all Services) and police administrations from each State. National organizations represented on the Council are:—Australian Automobile Association, Australian Road Transport Federation, Auto Cycle Council of Australia, Council of Fire and Accident Underwriters, The Federal Chamber of Automotive Industries, Federation of Motor Cycle Importers and Distributors of Australia, and Transport Workers' Union of Australia.

The Council meets annually and an Executive Committee operates between conferences. The principal effort of the Council is directed through educational, advertising and public relations media.

An annual grant was made available by the Commonwealth Government, under the Commonwealth Aid Roads Act, for the promotion of road safety to 30th June, 1959. From 1st July, 1959, the grant has been made available from the vote of the Department of Shipping and Transport. Hitherto £100,000 annually, it was increased to £150,000 for the four years commencing 1st July, 1955. Of this, £90,000 is allocated to State Road Safety Councils for local activities in the following proportions:—New South Wales, £22,500; Victoria, £18,000; Queensland, £16,650; Western Australia, £14,850; South Australia, £11,250; and Tasmania, £6,750. The remaining £60,000 is applied to the National Campaign, spread over the entire Commonwealth.

2. Mode of Operation.—The role of the Australian Road Safety Council is primarily in the field of Public Education. Its task is to inculcate the habit of safe use of the roads by all who travel on them and to promote the cause of road safety as a humanitarian and community ideal of the highest importance. To this end, it constantly strives to increase

public awareness of the road accident problem, which for the year ended 30th June, 1959, resulted in 40,544 accidents, causing the deaths of 2,264 persons and injuries to another 53,955 persons. (For further information on the subject of Traffic Accidents, see pp. 364–366, 370, 547.)

The campaign for road accident prevention resolves broadly into two main elements relating to (i) Road Users and (ii) Roads and Vehicles. The attack falls into three main divisions—(i) Education, (ii) Enforcement, and (iii) Engineering. The link between the components is, broadly:—

Road Users.—Education (public relations media, instruction in schools, homes, etc.). Enforcement (of correct road usage—through the police and the courts, uniform traffic laws, etc.).

Roads and Vehicles.—Engineering (technical improvements of all kinds, safer roads and vehicles, improved illumination, uniform vehicle standards, etc.).

In addition to the foregoing activities, the Council convenes special national conferences, as required by the Australian Transport Advisory Council, to consider specific road safety problems. Typical of these have been the special committee appointed in 1951 to discuss level crossing accidents, which recommended, among other measures, the appointment in each State of a committee to investigate level crossings and report on safety provisions, the elimination of some railway level crossings and the closure of others where practicable and desirable; a special meeting held in June, 1953, to discuss methods of reducing the high incidence of motor cycle accidents, at which various measures to offset the greater vulnerability of both the machine and its rider were recommended; and special meetings held in May, 1954, and April, 1955, to consider the problems of "Youth and Road Safety" and "Pedestrian Behaviour" respectively. Road safety and traffic authorities from overseas countries took part in special "International Sessions" of the 1956 Congress of the Council. The Australian Road Safety Council has pioneered the advocacy of voluntary blood tests for intoxication in cases of suspected driving under the influence of drugs or alcohol, and the wearing of "approved" safety helmets by motor cyclists, motor scooterists and their pillion riders. An Educational-Enforcement campaign to link more closely the work of the road safety movement and the police was launched in all States and the Australian Capital Territory during 1958 and 1959.

The Council works in close collaboration with two other bodies also established by the Australian Transport Advisory Council, namely, the Australian Motor Vehicle Standards Committee and the Australian Road Traffic Code Committee. All three bodies are administered by the Commonwealth Department of Shipping and Transport, which is the executive department for the Australian Transport Advisory Council.

The Australian Motor Vehicle Standards Committee develops and promulgates essential basic motor vehicle standards such as maximum lengths, weights, heights, carrying capacity of vehicles, and minimum lighting, braking and other mechanical efficiencies. In addition to ensuring a greater safety factor, these standards have helped to eliminate many conflicting State requirements which had an adverse effect on design and production costs.

The Australian Road Traffic Code Committee is responsible for drafting recommendations for uniform road traffic laws for the entire Commonwealth in keeping with existing motoring conditions.

The initial approach to this task was consideration of the more important aspects of traffic legislation in which uniformity was most desirable. To date, its recommendations concerning right-of-way at intersections, drivers signals, pedestrian crossings and uniform conditions for overseas motorists visiting Australia are typical of those which have been approved by the Australian Transport Advisory Council for adoption throughout the Commonwealth.

The Australian Transport Advisory Council, in March, 1958, appointed a special sub-committee consisting of one representative of each State and the Australian Capital Territory/Northern Territory with a Commonwealth representative as Chairman, to draft a complete Australian Uniform Road Traffic Code.

Substantial progress has been made in reaching agreement on the principles involved, but this is essentially a long range project and the code, having been prepared, will not remain static but will require periodical review in order to incorporate new ideas which emerge from changing traffic conditions.

§ 15. Australian Atomic Energy Commission.

In November 1952, a Commission of three members was appointed to control the Commonwealth's activities in relation to uranium and atomic energy, and in April 1953, upon the enactment of the Atomic Energy Act 1953, the Commission was established as a statutory authority, with powers and functions as defined in the Act. Under amending legislation, the number of Commissioners was increased to five in April, 1958. The Commission is a corporate and autonomous body, controlling its own service. It functions under the direction of the Minister for National Development.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium, and is empowered to co-operate with the appropriate authorities of the States in connexion with these and related matters. Secondly, it is authorized to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. These powers and functions are set out in detail in Part II. of the 1953 Act. In general, and subject to the Commonwealth's defence powers and particular provisions of the Act, they are exercisable only in or in relation to the Territories of the Commonwealth.

Uranium prospecting and mining in the Territories of the Commonwealth are freely open to private enterprise, subject to the Atomic Energy Act 1953 and the Ordinances of the Territories. To help private prospectors, and to ascertain the uranium resources of the Territories, aerial and geological surveys are carried out for the Commission by the Bureau of Mineral Resources of the Department of National Development. Rewards are paid for uranium discoveries, and tax concessions are allowed in respect of income from uranium mining. In addition, the Atomic Energy Commission, the Bureau of Mineral Resources and other Commonwealth agencies provide prospectors and mining companies with a wide range of technical and advisory services.

The development of the uranium resources of the States is governed by the legislation and policies of the States. Commonwealth aerial survey facilities are available to the States, and the State Mines Departments test uranium ores, and do research on ore treatment problems, for the Commonwealth.

Uranium oxide is being produced in Australia from ore deposits at Rum Jungle and South Alligator River, in the Northern Territory, Radium Hill, in South Australia, and Mary Kathleen, in Queensland. The Rum Jungle deposits have been worked under arrangements between the Commonwealth and the Combined Development Agency, a joint procurement organization of the United States and United Kingdom Governments. The mining and treatment operations are conducted for the Commonwealth by an Australian mining company. A treatment plant began operations on the field in September, 1954, the substantial production being sold to the Agency for defence purposes. Mining was completed in November 1958, all the ore having been extracted from the known Rum Jungle deposits. Treatment operations continued on the same scale as before, with ore from stockpiles, which are more than sufficient to complete the contract with the Combined Development Agency. The area is being systematically explored for further ore.

The Radium Hill deposits are being worked by the South Australian Government, which has an ore concentration plant on the field and a plant for the treatment of the concentrates at Port Pirie. As at Rum Jungle, the operations at Radium Hill and Port Pirie are carried out under arrangements with the Combined Development Agency, and the output from the operations is sold to the Agency.

The Mary Kathleen lease in the Mt. Isa-Cloncurry district in Queensland contains a large body of ore. It is being worked by commercial interests, which have established a mine, treatment plant and township in the area at a cost of more than £10 million. Production from the plant is being sold to the United Kingdom Atomic Energy Authority, under arrangements approved by the Commonwealth Government. Two other companies, in the South Alligator region, also have contracts with the Authority for smaller tonnages, and both began production in 1959.

The Commission has undertaken a research programme into the civil uses of atomic energy, with special reference to Australian needs. Its research establishment at Lucas Heights near Sydney is equipped with a high flux nuclear reactor of an advanced type, with associated services and various laboratories. So that the specialized facilities at Lucas

Heights may be available to the universities for research and training, the Australian Institute of Nuclear Science and Engineering has been established. This is a joint venture of the Commission and the Australian universities. Within Australia, in addition to its programme at Lucas Heights, the Commission is supporting atomic energy research on a considerable scale in the various universities, and it has established a wide range of post-graduate studentships in the universities to train scientists for future work in atomic energy fields.

The broad objects of the Commission's research programme are to develop the production of electric power from nuclear fuels, and to investigate and promote the application of atomic energy and radioactive isotopes in industry, agriculture, medicine and biological research and other fields. The Commission's Isotopes Advisory Service has dealt with an increasing number of inquiries from industrial and other users, and production of radio-isotopes has begun. Equipment has been installed to utilize the intense radiation from used reactor fuel elements for research into the industrial applications of radiation to food preservation, medical and industrial sterilization, and other purposes.

In these endeavours, the Atomic Energy Commission is working in close co-operation with the United Kingdom Atomic Energy Authority, under arrangements which give Australia access to results of United Kingdom research on peaceful atomic energy uses. Results of research in Australia will in like manner be available to the United Kingdom. Work in Australia, though constituting a self-contained programme, is co-ordinated with the United Kingdom programme, to avoid overlapping of research objectives and duplication of investigations. Australia also has bilateral arrangements with the United States and Canada, and is taking part in the promotion of the peaceful uses of atomic energy through the International Atomic Energy Agency.

In the light of the vast amount of research overseas, and the programmes of many nations for the establishment of full-scale power-producing reactors, it seems clear that nuclear power is steadily approaching the stage of being economically practicable. The planned Australian research effort will enable Australia to make a full contribution to the advancement of atomic energy technology, both in power production and in other fields, and will, at the same time, place the country in a position to take advantage of the practical uses of atomic energy as they are developed.

§ 16. The United Nations.

1. *General.*—The Moscow Declaration of 1943 concerning a new international organization for the maintenance of international peace and security marked the end of the League of Nations. The dissolution of the League and the transfer of certain of its functions to the new body, the United Nations, took place over subsequent years. Information concerning the League of Nations was given in issue No. 35 and earlier issues of the Official Year Book.

The Charter of the United Nations was drawn up by the delegates of 50 nations at the United Nations Conference on International Organization at San Francisco from 25th April to 26th June, 1945. Australia's ratification was deposited on 1st November, 1945. Following the admission of 16 new members during the Tenth Session and 17 more subsequently and the replacement of Egypt and Syria by the United Arab Republic, there are now* 82 member States:—Afghanistan, Albania, Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Burma, Byelorussia, Cambodia, Canada, Ceylon, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Denmark, the Dominican Republic, Ecuador, El Salvador, Ethiopia, Finland, France, Ghana, Greece, Guatemala, Guinea, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, the Republic of Ireland, Israel, Italy, Japan, Jordan, Laos, Lebanon, Liberia, Libya, Luxembourg, Malaya, Mexico, Morocco, Nepal, the Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Paraguay, Peru, the Philippines, Poland, Portugal, Romania, Saudi Arabia, Spain, Sudan, Sweden, Thailand, Tunisia, Turkey, the Ukraine, the Union of South Africa, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom, the United States of America, Uruguay, Venezuela, Yemen, and Yugoslavia.

The full record of the Conference is contained in the Report by the Australian Delegates on the United Nations Conference on International Organization held at San Francisco from 25th April to 26th June, 1945.

* April, 1960.

At San Francisco, an Executive Committee and a Preparatory Commission were established, and when these bodies had completed their work of preparation for the first meeting of the United Nations, the General Assembly met in London on 10th January, 1946.

The principal organs of the United Nations are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat.

2. General Assembly.—This is the forum of the United Nations. In it, each member State is represented and has one vote. It meets in regular annual sessions from the middle of September and has provision for special sessions. With the exception of disputes which are before the Security Council and matters essentially within the domestic jurisdiction of any State, it has power to discuss any matter within the scope of the Charter and to make recommendations upon it. The Assembly elects the non-permanent members of the other major organs and considers annual reports from them. Upon the recommendation of the Security Council, it may expel a member which has persistently violated the principles of the Charter.

3. The Security Council.—This has the primary responsibility for the maintenance of international peace and security. It is composed of five permanent members, namely China, France, the United Kingdom, the Union of Soviet Socialist Republics and the United States of America, and six non-permanent members with two-year periods of office, of whom three retire at the end of each year. At the initial election three countries, including Australia, were elected for a term of two years and three others for a term of one year only. The following are the non-permanent members of the Security Council at present*: Argentina, Italy and Tunisia (whose terms commenced on 1st January, 1959), and Ceylon, Ecuador and Poland (whose terms commenced on 1st January, 1960). On procedural matters, decisions are taken by an affirmative vote of any seven members, but on all other matters, decisions can be made only on the affirmative vote of seven members, including the concurring votes of all the permanent members. However, the powers which are parties to a dispute for peaceful settlement do not vote.

The Security Council is assisted by a Military Staff Committee consisting of the Chiefs of Staff of the permanent members of the Council or their representatives.

4. The Economic and Social Council.—This body consists of eighteen members, each elected for a period of three years. Its main functions are to make, or initiate, studies and reports, and to make recommendations to the General Assembly or to members of the United Nations upon international, economic, social, cultural, educational, health and related matters. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

The present* members of the Economic and Social Council are: Chile, China, Costa Rica, France, the Netherlands and Sudan (retiring 1960); Afghanistan, Bulgaria, New Zealand, Spain, the United States of America and Venezuela (retiring 1961) and Brazil, Denmark, Japan, Poland, the United Kingdom and the Union of Soviet Socialist Republics (retiring 1962).

5. The Trusteeship Council.—The Charter declares the political, social, cultural and economic advancement of the Trust Territories to be a sacred trust. The Trusteeship Council is composed of those members of the United Nations who are administering trust territories and an equal number of members who are not administering trust territories (including any permanent members of the Security Council who are not administering trust territories). Territories which may be placed under trusteeship in accord with individual trusteeship agreements are those previously held under mandate, those detached from enemy states as a result of the 1939–45 War and those dependent territories placed under the system by the States responsible for their administration. Australia is automatically a member of the Trusteeship Council, as the power administering the Trust Territories of New Guinea and Nauru. The present* members of the Trusteeship Council are: Australia, Belgium, France, Italy, New Zealand, the United Kingdom and the United States of America (administering States), and Bolivia, Burma, China, India, Paraguay, United Arab Republic and the Union of Soviet Socialist Republics. China and the Union of Soviet Socialist Republics are members of the Trusteeship Council by virtue of their permanent membership of the Security Council.

* April, 1960.

The Council has among its duties the consideration of annual reports submitted by the trustee States, the carrying out of periodic inspections by agreement with them, and the formulation of questionnaires on the welfare and advancement of the dependent peoples.

6. **The International Court of Justice.**—This consists of fifteen judges, no two of whom may be nationals of the same State. Its jurisdiction comprises all cases which the parties refer to it, and all matters especially provided for in the Charter or in treaties and conventions in force. Provision exists in the Statute of the Court whereby States, parties to the Statute, may accept the jurisdiction of the Court as compulsory, either conditionally or unconditionally in certain international disputes.

The present* members of the Court are: Judges Hackworth (United States of America), Sir Zafrullah Khan (Pakistan), Klaestad (Norway), Kojevnikov (U.S.S.R.), and Armand-Ugon (Uruguay)—all retiring in 1961; Judges Alfaro (Panama), Lauterpacht (United Kingdom), Basdevant (France), Cordova (Mexico), and Quintana (Argentina)—all retiring in 1964; and Judges Badawi (United Arab Republic), Wellington Koo (China), Winiarski (Poland), Sir Percy Spender (Australia) and Spiropoulos (Greece)—all retiring in 1967.

7. **The Secretariat.**—The Secretary-General is the head of the Secretariat of the organization. He is appointed by the General Assembly upon the recommendation of the Security Council, and he appoints his staff in accordance with the rules approved by the General Assembly. Mr. Trygve Lie (Norway) was appointed first Secretary-General, and at the Sixth Session of the General Assembly in 1950 was re-appointed for a further three years as from 1st February, 1951. In November, 1952, Mr. Lie announced his intention of retiring and in April, 1953, Mr. Dag Hammarskjöld (Sweden) was appointed in his place. Mr. Hammarskjöld was re-appointed for a further five years in September, 1957.

8. **Specialized Agencies.**—In addition to these organs of the United Nations, there are specialized agencies which co-operate closely with the United Nations in many fields on economic and social questions.

Those now* in operation are: The International Labour Organization; Food and Agriculture Organization; United Nations Educational, Scientific and Cultural Organization; International Civil Aviation Organization; International Bank for Reconstruction and Development; International Monetary Fund; Universal Postal Union; World Health Organization; International Telecommunication Union; World Meteorological Organization; Intergovernmental Maritime Consultative Organization.

To enable co-ordination of the work of the specialized agencies, arrangements have been made for them to submit reports on their activities and budgets to the United Nations where they are discussed by the Economic and Social Council and the General Assembly.

§ 17. Australian Representation Abroad : Oversea Representation in Australia.

1. **General.**—The following statements show particulars of the various Australian diplomatic and other representatives overseas and of overseas representatives in Australia at 30th September, 1960. Full details of Commonwealth and foreign representation in Australia—diplomatic and consular—and of permanent Australian missions overseas may be obtained from publications issued by the Department of External Affairs, Canberra. A statement is issued each quarter by the Department of Trade, showing the latest particulars of the Australian Trade Commissioner Service overseas.

2. Australian Representation Overseas—

AUSTRALIAN DIPLOMATIC AND OTHER REPRESENTATIVES OVERSEAS.

Her Majesty's Australian Ambassador Extraordinary and Plenipotentiary to—
Belgium (Brussels)—Sir Edwin McCarthy, C.B.E.
Brazil (Rio de Janeiro)—S. Jamieson.
Burma (Rangoon)—A. H. Loomes.
Cambodia (Phnom Penh)—F. H. Stuart.

* April, 1960.

France (Paris)—Dr. E. R. Walker, C.B.E.
Germany, Federal Republic of (Bonn)—Sir Alan Watt, C.B.E.
Indonesia (Djakarta)—P. Shaw, C.B.E.
Ireland (Dublin)—(Vacant); N. St. C. Deschamps (Chargé d'Affaires *ad interim*).
Italy (Rome)—H. A. McClure-Smith, C.V.O.
Japan (Tokyo)—L. R. McIntyre, C.B.E.
The Netherlands (The Hague)—Sir Edwin McCarthy, C.B.E.
The Philippines (Manilla)—A. T. Stirling, C.B.E.
Thailand (Bangkok)—M. R. Booker.
Union of Soviet Socialist Republics (Moscow)—J. K. Waller, O.B.E.
United States of America (Washington, D.C.)—The Hon. Howard Beale, Q.C.
Viet Nam (Saigon)—W. D. Forsyth, O.B.E.

High Commissioners for Australia in—

Canada (Ottawa)—(Vacant); K. Desmond (Acting).
Ceylon (Colombo)—J. C. G. Kevin.
Ghana (Accra)—B. C. Ballard.
India (New Delhi)—W. R. Crocker, C.B.E.
Malaya, Federation of (Kuala Lumpur)—T. K. Critchley.
New Zealand (Wellington)—Vice-Admiral Sir John Collins, K.B.E., C.B.
Nigeria (Lagos)—(Vacant); L. E. Phillips (Acting).
Pakistan (Karachi)—A. R. Cutler, V.C., C.B.E.
Union of South Africa (Pretoria)—O. L. Davis.
United Kingdom of Great Britain and Northern Ireland (London)—The Rt. Hon. Sir Eric Harrison, K.C.V.O.

Her Majesty's Australian Envoy Extraordinary and Minister Plenipotentiary to—

Israel (Tel Aviv)—J. M. McMillan.
Laos (Vientiane)—W. D. Forsythe, O.B.E.
United Arab Republic (Cairo)—J. P. Quinn, O.B.E.

Australian Military Mission—

Germany, Federal Republic of (Berlin)—Head, Sir Alan Watt, C.B.E.

Australian Mission—

United Nations (New York)—Ambassador, J. Plimsoll, C.B.E.
United Nations (Geneva)—Permanent Representative, L. J. Arnott.

Australian Commissioner in—

Singapore, Brunei, Sarawak and North Borneo (Singapore)—G. A. Jockel.

Consuls-General—

Greece (Athens)—G. V. Greenhalgh.
Switzerland (Geneva)—L. J. Arnott.
United States of America (New York)—The Hon. Sir Josiah Francis.
United States of America (San Francisco)—T. W. Cutts.

Consuls—

Denmark (Copenhagen)—G. A. Cole.
New Caledonia (Noumea)—K. R. Douglas-Scott.
Portugese Timor (Dili)—W. A. Luscombe.
United States of America (New York)—W. H. Bray.

Trade Commissioner Service of the Commonwealth of Australia—

Canada—R. R. Ellen, M.B.E. (Montreal); C. A. Allen, M.V.O. (Vancouver), W. R. Hudspeth (Ottawa).
Ceylon—D. F. J. McSweeney (Colombo).
France—A. P. Fleming, O.B.E., Commercial Counsellor and Trade Commissioner (Paris).
Germany, Federal Republic of—R. K. Scott, Commercial Counsellor and Trade Commissioner (Bonn).

- Ghana*—D. R. Cristofani, Commercial Counsellor and Trade Commissioner (Accra).
Hong Kong—G. R. B. Patterson, O.B.E., Senior Trade Commissioner, R. J. C. Schneeman, Trade Commissioner (Victoria).
India—F. R. Gullick, Commercial Counsellor and Senior Trade Commissioner (New Delhi); D. R. McPhee, O.B.E., E.D., (Bombay); K. C. Gale (Calcutta).
Indonesia—M. J. S. Knowles (Acting), Commercial Counsellor and Trade Commissioner (Djakarta).
Italy—H. K. H. Cook, Commercial Counsellor and Trade Commissioner (Rome).
Japan—A. J. Day, M.B.E., Commercial Counsellor and Trade Commissioner (Tokyo).
Kenya—G. W. S. Temby, Australian Trade Commissioner (Nairobi).
Malaya, Federation of—W. Cairns, Commercial Counsellor and Trade Commissioner (Kuala Lumpur).
New Zealand—H. C. Menzies, Senior Trade Commissioner (Wellington); C. L. Steele, Trade Commissioner (Auckland); D. M. Walker, Trade Commissioner (Christchurch).
Pakistan—A. R. Taysom, Commercial Counsellor and Trade Commissioner (Karachi).
Philippines, The—D. L. Crawford, Commercial Counsellor and Trade Commissioner (Manilla).
Rhodesia and Nyasaland, Federation of—H. M. LeMarchand (Salisbury).
Singapore—J. S. Nicholls, Acting Commercial Counsellor and Trade Commissioner (Singapore).
Sweden—W. R. Carney, Senior Trade Commissioner; A. C. Slater, Trade Commissioner (Stockholm).
Thailand—S. D. Shubart, Commercial Counsellor and Trade Commissioner (Bangkok).
Union of South Africa—J. L. Chapman, Commercial Counsellor and Trade Commissioner (Johannesburg).
United Kingdom of Great Britain and Northern Ireland—P. R. Searcy, Senior Trade Commissioner; N. N. Ellis (London).
United States of America—A. R. Callaghan, C.M.G., Commercial Counsellor and Trade Commissioner; R. S. Livingston, Commercial Counsellor (Washington); B. T. Connolly (New York); B. G. Dawson (San Francisco); E. E. Jarvis (Chicago).
West Indies, Federation of—J. J. Molan (Port of Spain).

Australian Government Trade Correspondents—

- Fiji*—D. E. Morgan (Nadi Airport).
Formosa—E. J. N. Mycock (Taipei).
Hawaii—R. K. Wetherell (Honolulu).
Mauritius—J. L. B. Cowan (Curepipe).
Mexico—N. Pelham Wright (Mexico City).
South America—Captain H. Cross (Montevideo Ro Del Uruguay).

3. **Oversea Representation in Australia.**—Consular representatives are not included in the following statement. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 180 such representatives in Australia, and 53 countries are represented.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA.

Ambassador Extraordinary and Plenipotentiary of—

- Belgium*—His Excellency Monsieur Willy Stevens (Sydney FB 1325).
Brazil—His Excellency Senhor Affonso Portugal (Canberra X 2680).
Burma—(Vacant); U Than Hl A. (Chargé d'Affaires *ad interim*) (Canberra U 1451).
Cambodia—His Excellency Mr. Poc Thieun (Canberra 9.0066).
China—His Excellency Dr. Chen Chi-Mai (Canberra U 2368).
France—His Excellency Monsieur P. Monod (Canberra U 1454).
Germany, Federal Republic of—His Excellency Dr. Hans Mühlendorf (Canberra U 1553).

Greece—His Excellency Monsieur G. K. A. Christodulo (Canberra X 1553).
Indonesia—His Excellency Dr. A. Y. Helmi (Canberra U 1221).
Ireland—(Vacant); Mr. Sean Kennan (Chargé d'Affaires *ad interim*) (Canberra J 3251).
Italy—His Excellency Signor Eugenio Prato (Canberra J 3263).
Japan—His Excellency Mr. Katsushiro Narita (Canberra U 1251).
The Netherlands—His Excellency Dr. J. G. de Beus (Canberra U 1256).
The Philippines—His Excellency Mr. M. Ezpeleta (Sydney FL 4168).
Thailand—His Excellency Nai Vadhana Isarabhakdi (Canberra U 8101).
United States of America—His Excellency Mr. William J. Sebald (Canberra U 1351).
Union of Soviet Socialist Republics—His Excellency Mr. Ivan F. Kurdiukov (Canberra X 1033).

Envoy Extraordinary and Minister Plenipotentiary of—

Austria—Dr. W. de Comtes (Charge d'Affaires) (Canberra U 8167).
Denmark—Mr. F. Henning Hergel, O.B.E. (Chargé d'Affaires) (Sydney BW 3547).
Finland—Mr. T. I. Kala (Chargé d'Affaires) (Sydney FM 3116).
Israel—His Excellency Mr. M. Yuval (Sydney FB 4634).
Sweden—His Excellency Monsieur Nils-Eric Ekblad (Canberra U 1421).

High Commissioner for—

Canada—His Excellency Mr. T. W. L. MacDermot (Canberra U 1304).
Ceylon—His Excellency Mr. B. F. Perera, C.M.G., O.B.E. (Canberra X 1021).
India—His Excellency Shri Samar Sen (Canberra J 3209).
Malaya, Federation of—Inche Bahadun bin Haji Hassan—Acting High Commissioner (Canberra X 1277).
New Zealand—His Excellency the Hon. F. Jones (Canberra U 1030).
Pakistan—His Excellency Mr. J. G. Kharas (Canberra X 0021).
Union of South Africa—His Excellency Mr. A. M. Hamilton (Canberra U 2370).
United Kingdom of Great Britain and Northern Ireland—His Excellency Lieutenant-General Sir William Oliver, K.C.B., O.B.E. (Canberra U 2211).

Commissioner for—

Malta—Captain George F. L. Stivala, O.B.E. (Melbourne MU 1291).

TRADE COMMISSIONERS OF OVERSEA GOVERNMENTS IN AUSTRALIA.

Canada—Canadian Government Trade Commissioners—Mr. S. V. Allen (Sydney BW 5696-7) and Mr. T. G. Major (Melbourne MU 4716).
Ceylon—Ceylon Government Trade Commissioner—Mr. E. M. O. Martenstyn (Sydney BL 5039).
India—Indian Trade Commissioner—Mr. H. A. Sujan (Sydney BW 9518).
Malaya—Malayan Government Trade Commissioner—(Vacant).
New Zealand—Senior New Zealand Government Trade Commissioner—Mr. R. V. Jackson (Sydney BL 3941).
 New Zealand Government Trade Commissioner—Mr. A. C. Davys (Melbourne MU 8111).
United Kingdom of Great Britain and Northern Ireland—United Kingdom Senior Trade Commissioner—Mr. F. B. Arnold, C.M.G., O.B.E. (Canberra U 2211).
 United Kingdom Trade Commissioners—Messrs. N. L. Hibbs and P. B. Hunt (Canberra U 2211); Messrs. A. R. Bruce, O.B.E., A. Hartland, O.B.E., and L. F. Hope (Sydney BW 8086); Messrs. G. J. Husted, B. C. Harries and H. F. Stevens (Melbourne MU 5556); Mr. K. R. Allen (Brisbane B. 2307); Mr. J. D. Leithead (Perth BA 2042).

§ 18. Retail Trade.

1. General.—The statistics in this section relate to the number of retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30th June, 1948, by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective

of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods and a simple commodity dissection together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30th June, 1949.

A third census was taken for the year ended 30th June, 1953, in which retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups and questions were asked about stocks of goods on hand, the number of persons engaged in the business and credit sales.

A further Census was taken in respect of the year ended 30th June, 1957. The scope of this Census followed the same general principles adopted for the previous Census but some additional questions were asked about type of organization, purchases and customers' indebtedness.

In general terms, the censuses covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks and yards). Certain types of "service" establishments were also included, e.g., boot repairers, hairdressers, motor garages and service stations and cafes. The censuses included the retail sales of those factories or wholesalers who conducted a regular retail business, but excluded those who only occasionally sold goods by retail. Both new and second-hand goods were included in sales recorded by relevant retail establishments.

During the period between censuses, variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys and some of the results of the 1956-57 census are contained in this section.

2. **Value of Retail Sales in Each Commodity Group, Australia.**—The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1952-53 to 1958-59 on a comparable basis throughout. The figures for the years 1952-53 and 1956-57 were obtained from censuses taken in respect of those years, whereas figures for the other years shown are estimates based on sample surveys.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA.(a)
(£ million.)

Commodity Group.	Year ended 30th June—						
	1953.	1954.	1955.	1956.	1957.	1958.	1959.(b)
Groceries	261.4	275.0	302.0	328.7	343.9	358.3	376.7
Butchers' Meat	127.4	133.9	146.9	158.7	170.4	170.8	177.8
Other Food (c)	206.6	223.5	246.5	269.2	282.7	294.5	312.3
<i>Total Food and Groceries ..</i>	<i>595.4</i>	<i>632.4</i>	<i>695.4</i>	<i>756.6</i>	<i>797.0</i>	<i>823.6</i>	<i>866.8</i>
Beer, Wine and Spirits (d) ..	173.0	186.7	204.3	222.1	237.7	248.2	245.0
Clothing and Drapery	306.1	387.6	419.3	433.3	380.8	451.0	403.3
Footwear	49.0	59.4	59.4	59.4	59.4	59.4	64.7
Hardware(e)	112.1	122.9	136.1	144.5	145.1	146.2	159.0
Electrical Goods(f)	75.9	91.2	99.2	104.8	113.5	138.3	157.8
Furniture and Floor Coverings	72.8	81.0	86.4	91.8	92.6	97.6	99.0
Chemists' Goods	50.8	76.9	76.9	76.9	76.9	76.9	94.6
Newspapers, Books and Stationery	53.1	336.3	368.2	398.3	69.3	439.0	74.6
Other Goods(g)	210.7	277.7	277.7	277.7	277.7	277.7	280.2
<i>Total (excluding Motor Vehicles, etc.) ..</i>	<i>1,698.9</i>	<i>1,838.1</i>	<i>2,008.9</i>	<i>2,151.4</i>	<i>2,250.0</i>	<i>2,343.9</i>	<i>2,445.0</i>
Motor Vehicles, Parts, Petrol, etc.(h)	419.2	494.1	571.7	613.5	632.5	685.8	742.1

(a) Excludes Northern Territory and Australian Capital Territory. (b) Subject to revision.
(c) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (d) Excludes retail sales made by licensed clubs, canteens, etc. (e) Excludes basic building materials (e.g. timber, building sheets, tiles, joinery, cement). (f) Includes radios, television receivers and accessories, musical instruments domestic refrigerators, etc. (g) Includes tobacco, cigarettes, etc., grain and produce, jewellery, office equipment, etc. (h) Excludes farm machinery and implements, earth-moving, equipment, etc.

3. Number of Retail Establishments which sold goods in each Commodity Group and Value of Retail Sales in each Commodity Group, 1956-57, States.—The following tables show the number of establishments which sold goods in each commodity group and the value of retail sales during the year ended 30th June, 1957, for each State.

NUMBER OF RETAIL ESTABLISHMENTS WHICH SOLD GOODS IN EACH COMMODITY GROUP SPECIFIED : STATES, 1956-57.(a)

Commodity Group.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Foodstuffs—</i>									
Groceries (including Bacon, Butter, etc.)	12,377	8,133	4,568	3,168	2,438	1,273	69	65	32,091
Butchers' Meat	3,426	2,590	1,385	1,006	838	370	20	22	9,657
Fresh Fruit and Vegetables	7,113	3,683	3,674	1,721	1,751	980	38	32	18,992
Bread, Cakes and Pastry	8,761	6,127	3,749	2,188	1,775	703	41	43	23,387
Confectionery, Ice Cream, Soft Drinks (including Milk Drinks)	13,642	8,634	5,484	3,554	3,012	1,395	71	58	35,850
Other Food (Fish, Poultry, Cooked Meats, Wrapped Lunches, etc.)	7,568	3,952	3,023	1,945	1,396	487	33	36	18,440
<i>Beer, Tobacco, etc.—</i>									
Beer, Wine and Spirits	2,793	2,119	1,346	747	768	302	44	29	8,148
Tobacco, Cigars and Cigarettes	20,317	13,449	7,608	5,003	4,088	1,870	103	102	52,540
<i>Clothing, Drapery, etc.—</i>									
Clothing—									
Men's and Boys' Wear	2,932	2,301	1,485	1,115	973	379	52	35	9,272
Women's, Girls' and Infants' Wear (including Handbags)	4,311	3,572	1,534	1,231	920	449	40	45	12,102
Drapery, Piece-goods, Manchester and Soft Furnishings	2,388	1,809	1,223	928	795	283	38	27	7,491
Footwear—									
Men's and Boys'	2,046	1,509	1,141	835	600	354	36	21	6,542
Women's, Girls' and Infants'	1,766	1,306	907	761	527	303	28	18	5,616
<i>Hardware, Business Machines, etc.—</i>									
Builders' Hardware and Supplies (including Tools of Trade)(b)	2,001	1,654	941	733	743	204	18	22	6,316
Domestic Hardware, Kitchenware, China and Glassware	3,527	2,712	1,628	1,478	1,073	473	34	39	10,964
Business Machines and Equipment	150	92	78	47	63	24	(c)	(c)	465
<i>Electrical Goods, etc.—</i>									
Radios, Radiograms and Record Players	1,482	1,262	693	594	496	162	14	22	(c)
Television and Accessories	541	777							
Musical Instruments, Records, Sheet Music, etc.	592	539	267	266	180	55			1,921
Domestic Refrigerators (including non-electrical)	1,385	1,161	680	539	422	145	13	22	4,367
Other Electrical Goods and Accessories	2,528	2,141	1,149	943	824	327	22	33	7,967
<i>Furniture and Floor Coverings—</i>									
Furniture (including Bedding)	1,165	1,000	558	421	432	146	(c)	(c)	3,752
Floor Coverings	890	737	348	351	278	136	(c)	(c)	2,758
<i>Other Goods—</i>									
Newspapers, Periodicals, Books and Stationery	3,818	3,025	2,479	1,543	1,094	494	(c)	(c)	12,517
Chemists' Goods (including Toiletries, Cosmetics and Dispensing)	4,436	2,871	2,308	1,334	1,390	458	47	35	12,879
Sporting and Travel Goods	1,731	1,197	740	571	516	162	(c)	(c)	4,960
Jewellery, Watches, Clocks, Silverware, etc.	1,707	1,254	750	616	528	207	24	16	5,102
Grain, Feed, Fertilizers	1,758	1,196	1,229	657	630	278	(c)	(c)	5,774
Other Goods (not specified)	3,105	2,998	1,173	890	685	239	23	44	9,157
Total (excluding Motor Vehicles, etc.)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
<i>Motor Vehicles, etc.(e)—</i>									
Tractors (including parts)	543	395	328	262	224	38	(c)	(c)	1,797
New Motor Vehicles (including Motor Cycles, etc.)	1,256	847	517	305	212	75	17	14	3,243
Used Motor Vehicles (including Motor Cycles, etc.)	1,526	1,068	649	602	363	98	(c)	(c)	4,338
Motor Parts, Accessories, Tyres, Tubes, etc.	3,780	2,763	1,768	1,291	1,189	396	35	24	11,246
Petrol, Oil, Motor Lubricants, etc.	4,806	3,535	2,232	1,488	1,286	557	56	23	13,983
Grand Total	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more.
 (b) Excludes Basic Building Materials (e.g. Timber, Building Sheets, Tiles, Joinery, Cement). (c) Not available for publication. (d) Not available. (e) Excludes Farm Machinery and Implements, Earth-moving Equipment, etc. (f) Many establishments showed sales in more than one commodity group. Thus the number of establishments selling goods in each commodity group does not add down to the total number of individual establishments which is as follows:—New South Wales, 44,201; Victoria, 35,268; Queensland, 16,605; South Australia, 11,260; Western Australia, 8,801; Tasmania, 3,857; Northern Territory, 207; Australian Capital Territory, 343; Total 170,547.

VALUE OF RETAIL SALES IN EACH COMMODITY GROUP SPECIFIED :
STATES, 1956-57.(a)

(£'000.)

Commodity Group.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Foodstuffs—									
Groceries (including Bacon, Butter, etc.) ..	134,737	90,019	53,769	27,498	26,204	11,692	920	1,264	346,103
Butchers' Meat ..	67,191	50,446	21,442	14,532	11,305	5,534	339	570	171,359
Fresh Fruit and Vegetables ..	29,822	22,863	9,690	6,406	5,743	1,865	269	339	76,997
Bread, Cakes and Pastry ..	28,221	21,826	9,453	6,685	4,715	2,129	178	177	73,384
Confectionery, Ice Cream, Soft Drinks (including Milk Drinks)	31,494	27,903	10,056	8,138	5,075	2,579	217	204	85,666
Other Food (Fish, Poultry, Cooked Meats, Wrapped Lunches, etc.) ..	19,907	13,425	6,455	4,281	3,072	960	160	255	48,515
Beer, Tobacco, etc.—(b)									
Beer, Wine and Spirits ..	97,892	63,496	31,842	19,886	17,582	6,984	1,185	778	239,645
Tobacco, Cigars and Cigarettes ..	39,358	29,229	13,188	8,678	6,798	3,043	388	445	101,127
Clothing, Drapery, etc.—									
Clothing—									
Men's and Boys' Wear ..	46,534	33,415	15,297	10,633	7,527	4,190	268	421	118,285
Women's, Girls' and Infants' Wear (including Handbags)	71,221	54,402	20,324	17,704	10,809	6,537	216	654	181,867
Drapery, Piece-goods, Manchester and Soft Furnishings ..	31,283	21,855	13,677	7,130	5,835	2,299	146	316	82,541
Footwear—									
Men's and Boys' ..	8,208	6,259	2,552	2,074	1,381	893	57	66	21,490
Women's, Girls' and Infants' ..	15,010	11,176	4,494	3,484	2,584	1,239	37	128	38,152
Hardware, Business Machines, etc.—									
Builders' Hardware and Supplies (including Tools of Trade)(c) ..	37,263	22,116	11,554	5,621	5,953	2,869	183	511	86,170
Domestic Hardware, Kitchenware, China and Glassware ..	21,998	18,215	8,185	5,522	4,154	1,659	112	241	60,086
Business Machines and Equipment ..	7,946	5,988	2,184	1,595	988	567	(d)	(d)	19,359
Electrical Goods, etc.—									
Radios, Radiograms, and Record Players ..	6,427	5,023	3,178	1,951	1,366	643	65	144	35,458
Television and Accessories ..	6,875	9,848							
Musical Instruments, Records, Sheet Music, etc. ..	3,575	2,768	1,382	995	677	299	51	144	9,758
Domestic Refrigerators (including non-electrical) ..	10,023	7,166	4,935	2,644	2,632	935			
Other Electrical Goods and Accessories ..	15,403	10,493	6,256	3,846	2,786	1,286	103	181	40,354
Furniture and Floor Coverings—									
Furniture (including Bedding) ..	22,854	18,884	8,153	6,306	4,275	1,931	(d)	(d)	62,802
Floor Coverings ..	11,782	9,452	2,787	3,178	1,845	1,277	(d)	(d)	30,531
Other Goods—									
Newspapers, Periodicals, Books and Stationery ..	28,175	21,500	8,715	4,340	4,414	2,174	(d)	(d)	69,744
Chemists' Goods (including Toiletries, Cosmetics and Dispensing) ..	31,879	21,281	10,489	6,526	4,560	2,174	139	334	77,382
Sporting and Travel Goods ..	5,914	4,292	1,806	1,201	784	439	(d)	(d)	14,580
Jewellery, Watches, Clocks, Silverware, etc. ..	11,228	7,943	3,452	2,345	1,848	763	74	135	27,788
Grain, Feed, Fertilizers ..	22,474	13,767	9,171	3,168	7,667	1,360	(d)	(d)	57,736
Other Goods (not specified above) ..	20,828	19,338	7,998	5,421	3,261	1,627	72	273	58,818
Total (excluding Motor Vehicles, etc.) ..	885,622	644,388	302,484	191,788	155,840	69,947	5,464	8,694	2264227
Motor Vehicles, etc.—(e)									
Tractors (including parts) ..	9,798	7,268	9,672	3,779	3,515	893	(d)	(d)	34,991
New Motor Vehicles (including Motor Cycles, etc.) ..	86,229	68,282	36,566	25,370	16,491	9,298	624	1,165	244,025
Used Motor Vehicles (including Motor Cycles, etc.) ..	53,341	36,779	25,173	18,881	14,774	6,154	(d)	(d)	156,079
Motor Parts, Accessories, Tyres, Tubes, etc.	29,446	19,704	12,793	7,724	5,807	2,413	344	294	78,525
Petrol, Oil, Motor Lubricants, etc.	48,264	35,133	15,288	11,068	8,685	3,805	318	588	123,149
Grand Total ..	1112700	811,554	401,976	258,610	205,112	92,510	7,045	11,489	2900996

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more. (b) Excludes retail sales made by licensed clubs, canteens, etc. (c) Excludes Basic Building Materials (e.g. Timber, Building Sheets, Tiles, Joinery, Cement). (d) Not available for publication. (e) Excludes Farm Machinery and Implements, Earth-moving Equipment, etc.

4. Number of Retail Establishments and Value of Retail Sales Classified According to Main Type of Business, 1956-57, States.—The following tables show the number of establishments and the value of retail sales during the year ended 30th June, 1957, in each State, classified according to main type of business. In general the classification of establishments according to main type of business was based on the predominant type of goods sold or service rendered, although the description given by the proprietor was used as a guide.

NUMBER OF RETAIL ESTABLISHMENTS CLASSIFIED ACCORDING TO MAIN TYPE OF BUSINESS: STATES, 1956-57.(a)

Main Type of Business.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Food Stores—</i>									
Grocers	10,129	5,202	3,772	2,081	1,810	1,100	45	39	24,178
Butchers	2,943	2,243	1,271	915	699	295	13	22	8,401
Fruiters	2,214	2,036	515	619	358	89	13	25	5,853
Bakers	1,696	1,371	715	404	328	151			4,681
Confectioners and Milk Bars	2,193	3,128	688	770	403	208			7,410
Cafés	1,130	693	445	104	236	20	20	25	2,642
Fishmongers and Poulterers ..	629	504	219	125	121	32			1,636
Other Food Stores	457	467	103	206	61	30			1,329
<i>Hotels, Tobacconists, etc.—</i>									
Hotels, Wine Saloons	2,222	1,844	1,237	641	531	294	25	8	6,802
Tobacconists	506	373	174	106	92	23	(b)	(b)	1,278
Tobacconist and Hairdressers	978	1,133	188	281	204	64	(b)	(b)	2,853
<i>Clothiers, Drapers, etc.—</i>									
Clothiers	4,197	3,662	1,310	945	689	301	18	51	11,173
Drapers, Haberdashers, etc. ..	613	524	294	119	116	8	(b)	(b)	1,683
Footwear Stores	611	710	182	187	89	61	(b)	(b)	1,853
<i>Hardware, Electrical Goods, Furniture, etc., Stores—</i>									
Domestic and Builders' Hardware Stores	1,324	1,447	561	474	349	86	(b)	(b)	4,265
Electrical Goods, Radios and Musical Instruments Stores	1,199	1,000	592	315	286	126	8	15	3,541
Furniture and Floor Coverings Stores	680	691	319	186	178	76	(b)	(b)	2,145
Business Machines Stores ..	89	47	39	26	25	17	(b)	(b)	249
<i>Other Goods Stores—</i>									
Newsagents and Booksellers ..	1,123	925	461	203	289	95			3,112
Chemists	1,551	1,174	523	403	253	96			4,018
Sports Goods Stores	246	178	96	36	24	19			606
Watchmakers and Jewellers ..	738	560	250	149	108	56	14	72	1,875
Grain and Produce Merchants	447	251	143	96	81	16			1,039
Cycle Stores	157	208	76	67	40	11			559
Florists and Nurserymen ..	462	384	78	94	68	33			1,125
Other Types of Business	1,038	1,146	349	249	191	76			3,069
<i>Total (excluding Motor Vehicle Dealers, etc.) ..</i>	<i>39,572</i>	<i>31,901</i>	<i>14,600</i>	<i>9,801</i>	<i>7,629</i>	<i>3,383</i>	<i>175</i>	<i>314</i>	<i>107,375</i>
<i>Motor Vehicle Dealers, etc.—</i>									
Tractor Dealers	78	39	52	26	31	9			235
New Motor Vehicle Dealers, Garages and Service Stations	3,802	2,826	1,623	1,196	902	406	32	29	10,804
Motor Parts and Tyre Dealers	408	245	182	82	105	34			1,065
Used Motor Vehicle Dealers ..	341	257	148	155	134	25			1,063
<i>Total</i>	<i>44,201</i>	<i>35,268</i>	<i>16,605</i>	<i>11,260</i>	<i>8,801</i>	<i>3,857</i>	<i>207</i>	<i>343</i>	<i>120,542</i>

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more.

(b) Not available for publication.

**VALUE OF RETAIL SALES OF GOODS CLASSIFIED ACCORDING TO MAIN TYPE
OF BUSINESS : STATES, 1956-57.(a)**
(£'000.)

Main Type of Business	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Food Stores—</i>									
Grocers	183,938	109,264	78,423	38,834	39,381	17,400	1,549	1,459	470,248
Butchers	67,118	50,308	21,428	14,580	10,851	5,644	416	590	170,935
Fruiters	27,522	23,203	6,715	6,323	4,378	1,235			70,054
Bakers	27,292	17,029	7,301	5,591	3,686	1,717	465	528	58,931
Confectioners and Milk Bars	21,785	31,768	5,760	8,099	3,039	1,729			72,566
Cafés	6,251	3,542	2,651	465	970	76			14,017
Fishmongers and Poulterers ..	5,002	3,998	1,445	980	992	271	253	377	12,765
Other Food Stores	7,844	6,104	1,268	2,278	775	403			18,777
<i>Hotels, Tobacconists, etc.—</i>									
Hotels, Wine Saloons	100,774	65,878	33,093	20,843	17,872	7,426	1,236	747	247,869
Tobacconists	5,752	3,738	1,693	1,325	837	381	(b)	(b)	13,752
Tobacconist and Hairdressers	2,965	5,244	386	1,121	660	215	(b)	(b)	10,600
<i>Clothing, Drapers, etc.—</i>									
Clothing	168,806	130,362	46,031	42,385	26,967	15,491	390	1,765	432,197
Drapers, Haberdashers, etc. ..	31,217	16,284	17,735	4,265	4,490	220	(b)	(b)	74,732
Footwear Stores	12,747	12,302	3,596	3,228	2,720	1,490	(b)	(b)	36,270
<i>Hardware, Electrical Goods, Furniture, etc., Stores—</i>									
Domestic and Builders' Hardware Stores	46,068	32,922	15,959	9,733	8,503	3,772	(b)	(b)	117,694
Electrical Goods, Radios and Musical Instruments Stores	33,095	27,379	13,220	6,327	6,355	2,706	200	308	89,590
Furniture and Floor Coverings Stores	32,392	25,147	10,147	7,155	4,075	2,500	(b)	(b)	82,193
Business Machines Stores	8,152	5,731	2,161	1,641	808	523	(b)	(b)	19,087
<i>Other Goods Stores—</i>									
Newspapers and Booksellers ..	26,016	19,196	7,633	2,741	4,154	1,870			62,060
Chemists	27,371	17,790	8,886	5,317	3,401	1,699			64,866
Sports Goods Stores	3,471	3,012	1,092	535	333	319			8,887
Watchmakers and Jewellers ..	9,776	6,538	2,712	1,612	1,506	591	351	1,143	22,947
Grain and Produce Merchants	22,793	14,358	8,647	2,647	7,647	1,165			57,404
Cycle Stores	1,274	1,319	454	471	252	59			3,829
Florists and Nurserymen	2,588	2,295	519	562	385	214			6,580
Other Types of Business	10,157	10,673	3,790	2,354	1,242	877			29,234
<i>Total (excluding Motor Vehicle Dealers, etc.) ..</i>	<i>(c)</i> 888,166	<i>(c)</i> 645,384	<i>(c)</i> 302,745	<i>(c)</i> 191,412	<i>(c)</i> 156,279	<i>(c)</i> 69,993	<i>(c)</i> 5,406	<i>(c)</i> 8,699	<i>(c)</i> 2,268,084
<i>Motor Vehicle Dealers, etc.—</i>									
Tractor Dealers	5,941	3,081	6,971	2,533	2,320	741			21,587
New Motor Vehicle Dealers, Garages and Service Stations	176,029	136,313	74,526	50,263	34,877	18,994	1,639	2,790	495,124
Motor Parts and Tyre Dealers	10,755	7,319	3,881	2,197	1,896	747			26,955
Used Motor Vehicle Dealers ..	31,809	19,457	13,853	12,205	9,740	2,035			89,246
<i>Total</i>	<i>1,112,700</i>	<i>811,554</i>	<i>401,976</i>	<i>258,610</i>	<i>205,112</i>	<i>92,510</i>	<i>7,045</i>	<i>11,489</i>	<i>2,900,996</i>

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more, and are the total value of all commodities sold by the types of business shown. (b) Not available for publication. (c) These figures differ from their counterparts in the table on p. 1160 because they include retail sales of motor vehicles, etc., made by establishments whose main type of business is other than motor vehicles, and exclude retail sales of goods other than motor vehicles, etc., made by establishments whose main type of business is motor vehicles.

CHAPTER XXXI.

STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. Statistical Organization in Australia.

1. **Early Development of Australian Statistics.**—(i) *Crown Colony "Blue Books"*. Statistical organization in Australia was founded in the "Blue Books" which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although primarily intended for administrative purposes, these documents have been important sources of statistical data, even though some important matters are not covered, and others only partially so. These "Blue Books" formed the basis from which later statistical publications were developed. This led to an element of uniformity in statistical compilation within the British Empire.

(ii) *Statistical Registers*. Following the advent of Responsible Government, which was granted during the period 1851–1860 to all Australian States except Western Australia—and to that State in 1890—the "Blue Book" was succeeded in all States by "Statistical Registers". These were in many respects the old "Blue Books" in a new form, and were largely confined to summaries of the "by-product" statistics of Government administrative departments.

The first example of extensive Governmental organization for purely statistical purposes was the taking of periodic population censuses, which were initiated in all States under the Crown Colony régime. The growing need for quantitative data concerning the progress of the several young communities of Australia eventually led to the appointment of official Statisticians commissioned to prepare and publish such data.

(iii) *Statistical Conferences*. To enable the interchange of ideas between States and to obtain uniform State statistics which could be aggregated to Australian totals, conferences were held in the several States from as early as 1861. Altogether, six conferences were held prior to the formation of the Commonwealth Bureau of Census and Statistics in 1906. These were held in 1861, 1875, 1890, 1900, 1902 and 1903. The holding of these conferences has been continued since the formation of the Commonwealth Bureau, and a representative from New Zealand attended up to 1928.

2. **Creation of the Commonwealth Bureau of Census and Statistics.**—Under the provisions of section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament "to make laws for the peace, order and good government of the Commonwealth with respect to—" (*inter alia*) "(XI.) Census and statistics". In compliance with this provision, the Census and Statistics Act 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own state of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State has its own "Statistics Act", and although these are not identical in all States, they embody common principles. The Commonwealth Bureau did not attempt to duplicate the existing statistical organization, but endeavoured to use the services of the State statistical offices whenever possible, and to undertake the initial collection of statistics only in fields not already occupied by the States, or in which efficiency demanded complete centralization.

3. **Integration of Statistical Services.**—The creation and development of the Commonwealth Bureau of Census and Statistics, the frequent conferences of Commonwealth and State Statisticians, and the close and increasing liason between officers dealing with the same subjects in the State and Commonwealth fields, did much to promote uniformity in the official statistical collections and methods employed throughout Australia. The complete realization of this aim could not, however, be achieved, even with the utmost co-operation of those concerned, while seven distinct statistical systems operated.

This became apparent after the 1914–18 War, when the economic problems that then arose drew attention to deficiencies in the Australian statistical data. With a view to overcoming these weaknesses the Prime Minister of the day proposed to the Premiers' Conference that State statistical offices be transferred to the Commonwealth. Tasmania alone agreed to this, and the transfer was effected in 1924. Since then, an amalgamated office has functioned satisfactorily in that State as a Commonwealth office which also serves State statistical needs.

The boom of the 1920's, the depression of the 1930's, the 1939-45 War, and the post-war boom, each with its special economic problems, imposed a severe strain on the Commonwealth and State statistical systems. Moreover, the development during and since the 1939-45 War of a very considerable volume of new statistics added greatly to the complexities of the several administrations in their efforts to secure, and maintain, uniformity in statistical collections. The establishment of Commonwealth statistical offices in some State capitals ameliorated the situation to some extent—indeed, without their establishment the new and expanded statistical collections could not have been carried out at all. However, this did not solve the problem and constituted only one of a number of improvisations devised to obtain uniform data essential for national purposes, and to satisfy urgent demands for new series of statistics. Furthermore, the excessive amount of time and effort entailed in such improvisations made it impossible to devote the necessary time to the major question of meeting growing statistical needs promptly.

The emergence of the problem of providing uniform statistical services throughout Australia, adequate to meet present-day demands, was foreseen during the 1939-45 War, and in 1949 discussions with the Premiers were initiated by the Prime Minister, with the object of integrating the statistical services of the Commonwealth and the States by agreement. These negotiations were continued by correspondence, and subsequently all State Governments accepted the terms of draft agreements to integrate their respective statistical offices with that of the Commonwealth.

The Statistics (Arrangements with States) Bill was introduced into the Commonwealth Parliament on 17th April, 1956, its purpose being to seek parliamentary approval of the making of arrangements with individual States for, and the setting up of, integrated statistical services. This legislation, permissive in nature, was designed to enable the Commonwealth to enter into an agreement with any State to effect an amalgamation of Commonwealth and State statistical offices and services. The object of such an agreement was that, in each State accepting it, there would be an integrated statistical service operated by Commonwealth statistical officers under the immediate direction of a statistician in the State who would hold office under both the Commonwealth and State governments. Both Commonwealth and State were to be adequately served with statistics, and no State would be required to surrender its existing powers in the field of statistics. The rights of officers transferred under any agreement entered into were provided for. After passing through the usual stages of Parliament, the bill became law on 12th May, 1956.

Integration of the Commonwealth and State statistical services was finally accomplished when the integration arrangement with Victoria came into effect on 15th September, 1958.

4. Scope of the Commonwealth Bureau of Census and Statistics.—The scope of the Commonwealth Bureau of Census and Statistics has constantly been widened, more particularly during the 1939-45 War, when the Bureau responded to the urgent demands of administration for immediate and accurate statistical information in various fields. Since the war, requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All the activities of the Bureau are covered by the Census and Statistics Act, which confers authority to collect information and contains stringent provisions to ensure that the information obtained is treated in strictest secrecy.

The following sections of this paragraph relate specifically to the organization and operation of the Commonwealth Bureau of Census and Statistics in Canberra. In the State Offices, the pattern is broadly similar, although local requirements have naturally given rise to differences in detail.

For administrative purposes, the Commonwealth Bureau, Canberra, is divided into a number of Divisions. These are:—Census, Compiling, Development, Methodology and Sampling, Publications, Research and Social Accounts, Mechanical Tabulation and Administrative.

(a) *Census Division.* This Division of the Bureau is responsible for the taking of periodic population censuses and the tabulation, summarization and preparation for publication of the results obtained.

(b) *Compiling Division.* The Compiling Division is divided into the following Branches which compile statistics dealing with specific fields of activity:—

Trade and Transport Branch—Responsible for the original compilation, tabulation and analysis of statistics relating to imports and exports, and for the compilation of statistics relating to road and rail transport, aviation, shipping, posts, telegraphs and telephones, and broadcasting and television.

Employment and Labour Branch—Compiles all employment estimates, wage and labour statistics.

Primary Production Branch—Deals with statistics relating to agricultural and pastoral activities, mining, forestry and fishing. Original data are supplied largely by State Statisticians.

Secondary Production Branch—Compiles all factory statistics both annual and monthly. Collates on a Commonwealth basis original data supplied by State Statisticians.

Finance and Taxation Branch—Compiles statistics of private finance (banking, insurance, exchange rates, etc.), public finance (Commonwealth, State and Local and Semi-Governmental authorities), and statistics relating to all aspects of Commonwealth taxation.

Demography Branch—Concerned with statistics of births, deaths, marriages and migration, and the making of periodic estimates of population.

(c) *Development Division*. This Division was created in order to develop new statistical collections to meet post-war demands for more adequate and up-to-date statistics, and also to examine current collections in the light of such requirements. It is divided into three Branches, namely:—

Development Branch—Develops new statistical collections and examines current collections in the light of present-day requirements. Included in the latter are Social Statistics.

Prices Branch—Deals with the collection of retail and wholesale prices and the compilation of retail and wholesale price index numbers. A staff of trained field officers is maintained in the several States to facilitate the collection of accurate information.

Business Statistics Branch—Conducts censuses and surveys and analyses statistics relating to internal trade (retail), business and hire purchase activities, and company investments and profits.

(d) *Methodology and Sampling Division*. Undertakes the development of sampling procedures and their application to statistical collections and furnishes technical advice to other Divisions and Departments.

(e) *Publications Division*. This Division is responsible for the editing and graphical illustration of all Bureau publications, and, in collaboration with other Divisions, for the initiation, development and co-ordination of statistical publications. It also maintains a regular flow of statistical series to certain international organizations, and revises statistical material in certain overseas and local publications.

(f) *Research and Social Accounts Division*. This Division is responsible for the preparation of all estimates in the field of social accounts and for research into this and other fields of statistics. It is divided into four branches as follows:—

National Income and Expenditure Branch—Prepares and analyses estimates of national income and expenditure and tables of social accounts.

Balance of Payments Branch—Prepares and analyses estimates of Australia's balance of international payments.

Quantum Indexes Branch—Prepares indexes of quantum of imports, exports, etc., and undertakes research into quantum of production, national expenditure, etc.

Research Branch—Carries out research into specific fields of statistics.

(g) *Mechanical Tabulation Division*. This Division is equipped with modern tabulating equipment including three electronic units and is responsible for all machine tabulating work required by other Divisions of the Bureau with the exception of the Census Division. It also carries out work for other Commonwealth Departments as capacity is available.

(h) *Administrative Division*. The Administrative Division is responsible for all aspects of staff recruitment and direction, supplies, payment of accounts, etc. The Reproduction Section of the Division is equipped with multilith and duplicating machines for processing statistical statements for more immediate requirements. In addition, a section of this Division is responsible for the co-ordination of statistics in Commonwealth Departments (see para. 5 below). The specialized library of official and unofficial publications on statistics and economics is controlled by the Administrative Division.

5. Relation of the Bureau to other Commonwealth Departments.—In October, 1950, the Commonwealth Public Service Board issued a circular relative to the compilation of statistics in other Commonwealth Departments, in which it stated that the Commonwealth Statistician should be the co-ordinating authority on all statistics in Commonwealth Departments, and that, as a general principle, where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician should be consulted to ensure that they are necessary and that they are based on sound statistical methods; furthermore, that the Commonwealth Statistician should make a regular inspection, at least once every twelve months, of all statistical work done by Departments to ensure that their needs are met by the most economical means and without duplication of effort.

This project of co-ordination is being implemented as statistical developments require and as time and circumstances permit.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely:—(i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only.

2. **Commonwealth Publications.**—Commonwealth publications containing statistics may be grouped under two heads, namely:—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to October, 1960:—

Australian Balance of Payments.—Statements Nos. 1 to 3, 1928–29 to 1951–52.

Australian Life Tables, 1901–1910. *Australian Joint Life Tables, 1901–1910.*

Australian Life Tables, 1920–1922.

Australian Life Tables, 1932–1934. *Australian Joint Life Tables, 1932–1934.*

Australian Life Tables, 1946–1948.

Australian Life Tables, 1953–1955.

Australian Mineral Industry Statistics (formerly *Minerals and Metals Bulletin*).—Part 2 of Quarterly Bulletin issued jointly with the Bureau of Mineral Resources.

Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

Census (1911) Results.—Bulletins. Vols. I. (Statistician's Report), II., and III., with Appendix *Mathematical Theory of Population*.

Census (1921) Results.—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II. NOTE.—Part XXVII., Life Tables.

Census (1933) Results.—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII., forming Vol. II., and Parts XXIX. to XXXVII., forming, with the Statistician's Report and Australian Life Tables, 1932–1934, Vol. III.

Census (1947) Results.—Bulletins, Nos. 1 to 25. Parts I. to XVI., forming Vol. I., Parts XVII. to XIX., forming Vol. II., and Parts XX. to XXVIII., forming, with the Statistician's Report and Australian Life Tables, 1946–1948, Vol. III.

Census (1954) Results.—See Price List at end of this volume.

Census of Motor Vehicles, 1947–48 (see *Survey of Motor Vehicles, 1947–48*).

Census of Motor Vehicles, 31st December, 1955.—Bulletins, Nos. 1 to 8.

* *Census of Retail Establishments (1947–48) Results.*—Bulletins, Nos. 1 to 7.

* *Census of Retail Establishments (1948–49) Results.*—Bulletins, Nos. 1 to 7.

* *Census of Retail Establishments (1952–53) Results.*—Bulletins, Nos. 1 to 14.

* *Dairying Industry* (formerly *Summary of Dairying Industry*).—Statistical Bulletin, monthly; first issue, September, 1937.

Demography.—Bulletin, annually, 1911 to 1958.

* *Digest of Current Economic Statistics.*—Monthly, since August, 1959.

* *Factories, Principal Statistics, Summary.*—Annually, 1948–49 to 1957–58.

Finance.—Bulletin, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.); 1919–20 and 1920–21 (one vol); 1922–23 to 1957–58 annually. From 1955–56 issued in two parts; Part I., Public and Private Finance; Part II., Commonwealth Taxation.

* *Food Production and the Consumption of Foodstuffs and Nutrients in Australia, Statistical Bulletin.* Half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1958–59.

* *Fruit Growing Industry Summary.*—Annually, 1944–45 to 1958–59.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report.—Annually, 1913 to 1958.

* *Livestock Numbers* (formerly *Summary of Livestock Statistics*)—Statistical Bulletin, annually, 1943 to 1960.

Local Government in Australia.—July, 1919.

* *Manufacturing Industries.*—Bulletins on Individual Industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete), and 1944–45 to 1958–59.

Monthly Review of Business Statistics.—First issue, October, 1937.

* *Occupation Survey (1945) Results.*—Detailed tables.

Official Year Book of the Commonwealth of Australia.—Annually, 1907 to present issue (No. 46). Issues Nos. 40 to 46 also published in parts.

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back page of this volume.

- Oversea Trade*.—Bulletin, annually, 1906 to 1959–60.
- **Oversea Trade*.—Preliminary Bulletin. Annually, 1952–53 to 1959–60.
- **Oversea Trade Statistics: Imports Cleared for Home Consumption classified according to Individual Items of the Customs Tariff*, 1950–51 to 1959–60.
- Australian Exports*. Annually, 1958–59 to 1959–60.
- Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*).—1913, 1914, 1916, and 1918 to 1960 annually.
- Population and Vital Statistics*.—Bulletins and Reports, various, 1906–1910.
- Primary Industries*.—Bulletins, annually, 1950–51 to 1957–58, in two parts—Part I. Rural Industries; Part II. Non-Rural Industries and Value of Production.
- Production*.—Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I. Secondary Industries; Part II. Primary Industries (including Total Recorded Production); thereafter separate Bulletins (see *Primary Industries* and *Secondary Industries*).
- Professional Papers*.—Various. A full list appears in Official Year Book No. 13. p. 3.
- Quarterly Summary of Australian Statistics*.—First issue, No. 70. December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins Nos. 1 to 69).
- **Registrations of New Motor Vehicles*.—Statistical Bulletin, monthly and annually.
- **Report of Proceedings of the Conference of British Commonwealth Statisticians*, 1951.
- **Rural Land Use and Crop Statistics* (formerly *Summary of Crop Statistics*).—Statistical Bulletin, annually, 1943–44 to 1958–59.
- Secondary Industries*.—Bulletin, annually, 1950–51 to 1957–58.
- **Size Classification of Rural Holdings*, 1955–56, Bulletins Nos. 1 to 7.
- Social Insurance*.—Report to the Hon. the Minister for Trade and Customs, 1910.
- Social Statistics*.—Bulletin, 1907 to 1915 annually, and 1918.
- Superannuation for the Commonwealth Public Service*.—Report to the Hon. the Minister for Home Affairs, 1910.
- **Survey of Motor Vehicles (1947–48) Results*.—Bulletins Nos. 1 to 7.
- **Survey of Private Pensions and Retiring Allowance Schemes*, 1955–56 (reprinted in *Finance*, Part I., Bulletin No. 47).
- **Survey of Private Superannuation Schemes 1951–52* (reprinted in *Finance* Bulletin No. 44).
- Transport and Communication*.—Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually, and 1932 to 1958–59 annually.
- Wealth*.—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.
- **Wheat Industry* (formerly *Summary of the Wheat Situation*).—Statistical Bulletin, periodically; first issue, July, 1936.
- **Wool Production and Utilization*.—Bulletin, annually, 1952–53 to 1958–59.

The foregoing list includes all the printed publications issued from the Bureau, and certain more important mimeographed publications issued for the most part annually. Other mimeographed statements are distributed by the Commonwealth Statistician and deal with a wide variety of subjects, as follows:—

Annually—Bee Farming; Bulletin of Oversea Investments; Commonwealth, State and Territory Taxation Collections; Factory Products (Principal); Fire, Marine and General Insurance; Fishing and Whaling; Milking Machines on Rural Holdings; Mining and Quarrying; Trade of Australia with Eastern Countries; Rural Statistics of the Australian Capital Territory; Tractors on Rural Holdings; University Statistics; Value of Production; Wheat Industry; Wine and Brandy Statistics; Wool Production.

Half-yearly—Australian Balance of Payments; Capital and Maintenance Expenditure; Labour Turnover; Trade of Australia with the United Kingdom.

Quarterly—Building; Consumer Price Index; New Capital Raisings; Retail Sales of Goods; "C" Series Retail Price Index; Road Traffic Accidents; Tractor Statistics; Trade of Australia with Monetary Groups.

Monthly—Banking; Demographic Review; Employment; Exports of Wool; Export Prices Index; Gold Mining Industry; Life Assurance; Meat Industry; Oversea Trade; Production Statistics; Retail Hire Purchase Operations of Finance Businesses; Savings Bank Statistics; Wholesale Price (Basic Materials and Foodstuffs) Index.

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back page of this volume.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers.* Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth appear in the Official Year Books up to No. 13, but it is not now practicable to undertake the preparation of such lists.

3. **State Publications.**—The chief statistical publications of each State are set out hereunder. As with the Commonwealth Parliamentary and Departmental Reports and Papers, it is not practicable to enumerate the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local and semi-governmental authorities, etc., in each State.

- (a) *New South Wales*—Statistical Register (annually); Official Year Book of New South Wales (annually); Pocket Year Book (annually); Statistical Bulletin (monthly to December, 1919, quarterly to June, 1943, then discontinued to September, 1948); Monthly Summary of Business Statistics.
- (b) *Victoria*—Statistical Register (annually to 1916, then discontinued); Victorian Year-Book (annually); Victorian Pocket Year Book (annually); Statistical Abstract (quarterly to 1917, then discontinued to December, 1946, quarterly to March, 1958, then discontinued); Victorian Monthly Statistical Review.
- (c) *Queensland*—Statistical Register (annually); Official Year Book, 1901; A.B.C. of Queensland Statistics (annually to 1936, then discontinued); Queensland Year Book (annually 1937 to 1941, then discontinued to 1945); Queensland Pocket Year Book (annually).
- (d) *South Australia*—Statistical Register (annually); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book of South Australia (annually); Quarterly Summary of Statistics.
- (e) *Western Australia*—Statistical Register (annually); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annually); Official Year Book of Western Australia (new series) from 1957.
- (f) *Tasmania*—Statistical Register (annually); Pocket Year Book of Tasmania (annually); Monthly Review of Business Statistics.

§ 3. The Third Conference of British Commonwealth Statisticians, Canberra, 1951.

Conferences of the Government Statisticians of the British Commonwealth were held first in London in 1920 and then in Ottawa in 1935. The third Conference was held in Canberra, from 12th to 23rd November, 1951. Delegates were present from Australia, Canada, Ceylon, India, New Zealand and the United Kingdom (including a representative of the Colonial Office). Ireland, the Commonwealth Economic Committee and the United Nations were represented by observers, and the Australian State Government Statisticians were also present. A summary of the activities of the conference may be found in Official Year Book No. 39, page 1320. The fourth Conference was held in London in 1956 and the fifth will be held in New Zealand in November, 1960.

§ 4. Select List of Works about, or published in, Australia.

(Compiled by the Librarian of the Commonwealth National Library.)

This list is designed to meet the growing need, in Australia as publishing develops, and overseas as interest in Australia widens, for an authoritative current reference and reading list of books dealing with Australia or of Australian authorship, wherever published.

Australians will find these books in the National Library and in their State Libraries as well as in leading bookshops. Oversea readers may have access to them in the collections which the National Library maintains at 44 Australian posts abroad. They will be found also, increasingly, in leading libraries and bookshops in many countries. In the United States, for example, Australian books are included in the Farmington Plan in which 62 libraries and research institutions co-operate to ensure that at least one copy of all material published in any part of the world and likely to be required for a serious purpose will be available promptly somewhere in the country. Under a similar arrangement, Australian books are supplied to the National Library of Canada.

The list is classified broadly by subject and under each heading there is first a list of the principal standard books still in print, then a list of selected books and official publications (excluding annual reports) published in the last few years. To ensure that, so far as is

possible, an evenness of standard is maintained in the compilation of the list, the advice of a representative range of experts in the various subject fields has been sought. Where known the retail price in the country of publication is given, but this is subject to fluctuation.

The Library also issues a series of select lists which include:—*Australian Public Affairs Information Service* (monthly and, since 1955, cumulated annually); a subject index of material in new books, pamphlets, current periodicals and government publications from English-speaking countries, with an important bearing on investigations into Australian political, economic, cultural and social affairs; and the following full bibliographies.

Australian Government Publications, a monthly list covering both the Commonwealth and the States;

Books Published in Australia, a monthly list of books supplied to the National Library under copyright.

The two last-mentioned publications are cumulated annually as the *Annual Catalogue of Australian Publications* which includes also a list of books published overseas of Australian interest or by authors resident in Australia, a select list of the more important Australian periodical and serial publications and a directory of publishers.

General and Descriptive.

STANDARD WORKS IN PRINT.

- ANNUAL CATALOGUE OF AUSTRALIAN PUBLICATIONS. Canb. Commonwealth National Library, 1936 to date. 6s. 6d. *per issue*.
 AUSTRALIA. Commonwealth National Library—*Film Division*. Australian films: a catalogue of scientific, educational and cultural films, 1940–1958. Canb., Govt. Pr., 1959. 12s. 6d.
 AUSTRALIAN ENCYCLOPEDIA: (ed in chief Alec. H. Chisholm): 10 v. Syd., Angus & Robertson, 1958. £50
 AUSTRALIAN NATIONAL TRAVEL ASSOCIATION. Australia handbook. Melb., 1955. 7s. 6d.
 AUSTRALIAN PUBLIC AFFAIRS INFORMATION SERVICE: a subject index to current literature. Canb., Commonwealth National Library, 1945 to date. Monthly. 2s. 6d. *per issue*.
 AUSTRALIAN QUARTERLY: a quarterly review of Australian affairs. Syd., Australian Institute of Political Science, 1929 to date. 4s. *per issue*.
 AUSTRALIAN SCENE. Melb. and Syd., Australian National Travel Association, 1948 to date. 8s. 6d. *ea*.
 BANK OF NEW SOUTH WALES. Australia for the visitor. Syd., 1956. 17s. 6d.
 CAIGER, G., *ed*. The Australian way of life. Lond., Heinemann, 1953. 12s. 6d.
 DAKIN, W. J. Great Barrier Reef. Melb., Australian National Travel Association, 1955. 10s. 6d.
 FINLAYSON, H. H. The red centre: man and beast in the heart of Australia (2nd ed.). Syd., Angus & Robertson, 1952. 21s.
 HILL, ERNESTINE. The great Australian loneliness. Melb., Robertson and Mullens, 1952. 27s. 6d.
 OFFICIAL YEAR BOOK OF THE COMMONWEALTH OF AUSTRALIA: No. 1 to date. Canb., Govt. Pr., 1908 to 1946–47 (No. 37), 5s. *per issue*; after No. 38, 10s. Latest issue No. 46, 1960.
 PRESS DIRECTORY OF AUSTRALIA AND NEW ZEALAND. Syd., Country Press, 1914 to date. Irreg. Latest issue: 1958.
 TAYLOR, T. G. Australia: a study of warm environments and their effect on British settlement (7th ed. revised and enlarged). Lond., Methuen, 1959. 57s. 9d.
 UNITED STATES—*Interior, Department of the—Office of Geography*. Australia: official standard names approved by the United States Board of Geographic Names. Wash., D.C. 1957.
 WALKABOUT: Australian geographical magazine: v. 1 to date. Melb., Australian Geographical Society, 1934 to date. Monthly, 32s. 6d. *per annum*.

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIAN WOMEN'S WEEKLY. Australia from the air. Syd., Australian Consolidated Press, 1959. 7s. 6d.
 THE AUSTRALIAN YEAR. Syd., Australian Consolidated Press Ltd., 1958. 7s. 6d.
 BANK OF NEW SOUTH WALES. Facts about Australia: a booklet for prospective new settlers. Syd., 1959. *gratis*.
 BEATTY, W. A. Here in Australia. Melb., Cassell, 1959. 25s.
 The White Roof of Australia. Melb., Cassell, 1958. 25s.
 BEST, R. J., *ed*. Introducing South Australia. Melb., Melbourne Univ. Press for Australian and New Zealand Association for the Advancement of Science, 1958. 37s. 6d.
 CHAUVEL, C. Walkabout: by Charles and Elsa Chauvel. Lond., W. H. Allen, 1959. 22s. 6d.
 FITZPATRICK, KATHLEEN. Australian explorers: a selection from their writings with an introduction. Lond., Oxford Univ. Press, 1958. 9s. 6d.
 HOLFORD, Sir WILLIAM G. Observations on the future development of Canberra, A.C.T.: made at the request of the Commonwealth Government. Canb., Govt. Pr., 1958.
 JOHNSTON, F. H., *comp*. A glimpse of Australia. Syd., F. H. Johnston Pub. Co., 1958. 21s. 6d.
 LOCKWOOD, D. Crocodiles and other people. Lond., Cassell, 1959. 23s. 9d.
 MANDER, A. E. The making of the Australians. Melb., Georgian House, 1958. 10s. 6d.
 NATIONAL BANK OF AUSTRALASIA. Australia: a guide for newcomers. Melb., 1959. *gratis*.
 NATIONAL PARKS ASSOCIATION OF QUEENSLAND. The national parks of Queensland. Bris., 1959. 3s. 6d.
 NEW SOUTH WALES—*Premier's Department*. New South Wales, Australia. Syd., Govt. Pr., 1959.
 NIEMELA, J. N. Australia: the great south land. Syd., Angus and Robertson, 1956. 15s.
 O'CONNOR, ELIZABETH. Steak for breakfast. Syd., Angus and Robertson, 1958. 17s. (Experiences of a young mother on an outback cattle station in Queensland).
 PRINGLE, J. M. D. Australian accent: drawings by George Molnar. Lond., Chatto and Windus, 1958. 18s.

General and Descriptive—*continued.*RECENT PUBLICATIONS OF INTEREST—*continued.*

- REA, B. Up and down the Sydney road: the romance of the Hume Highway. Melb. Georgian House, 1958. 25s.
 SIMPSON, C. Australian image. Syd., Legend Press, 1956. 32s. 6d. (Illustrated with reproductions of the works of Australian landscape painters).
 SYDNEY CITY COUNCIL. The city of Sydney: official guide. Syd., 1958.
 TAYLOR, T. G. Sydneyside scenery and how it came about (also Canberra and Kosciusko). Syd., Angus and Robertson, 1958. 35s.
 WARD, R. The Australian legend. Melb., Oxford Univ. Press, 1958. 45s. An historical analysis of Australian national traits.
 ZIEGLER, O. L. ed. This is Australia: ed. and produced by Oswald L. Ziegler, with the collaboration of the State governments of New South Wales, Victoria, South Australia and Western Australia, and the Commonwealth government departments. Syd., Oswald Ziegler Publications, 1957. 50s.

Territories Outside Australia.

STANDARD WORKS IN PRINT.

- AUSTRALIAN NATIONAL ANTARCTIC RESEARCH EXPEDITION, 1947–1949. Reports. Melb., Antarctic Division, Department of External Affairs, 1951 to date.
 GORDON, D. C. The Australian frontier in New Guinea 1870–1885. N.Y., Columbia Univ. Press, 1951. \$4.25.
 HANDBOOK OF PAPUA AND NEW GUINEA, 1958: comp. and ed. by R. W. Robson. (2nd ed.) Syd., Pacific Publications, 1958. 30s.
 LAW, P. G., ANARE Australia's Antarctic outposts: by Phillip Law and John Bechervaise. Melb., Oxford Univ. Press, 1957. 60s.
 LEESON, IDA. A bibliography of bibliographies of the South Pacific. Melb., Oxford Univ. Press, 1954. 15s.
 PAPUA AND NEW GUINEA, *Territory of—Laws, statutes, &c.* Laws of the Territory of Papua-New Guinea, 1945–1949 (annotated) . . . together with supplements to the Laws of the Territory of Papua, 1888–1945 (annotated) and the laws of the Territory of New Guinea 1921–1945 (annotated). Syd., Govt. Pr., 1952. 420s. per set.
 SCHOLES, W. A. Seventh continent: saga of Australian exploration in Antarctica 1895–1950. Lond., Allen & Unwin, 1953. 21s.
 STANNER, W. E. H. The South Seas in transition: a study of post-war rehabilitation and reconstruction in three British Pacific dependencies. Syd., A'sian Pub. Co., 1953. 50s.
 WILLIAMS, F. E. Orokaiva magic. Oxf., Oxford Univ. Press, 1928. 12s. 6d.
 —Orokaiva society. Oxf., Oxford Univ. Press, 1930. 25s. (Since 1958, these two works have been distributed by the Administration, Territory of Papua and New Guinea.)
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 See also the annual reports of the Commonwealth Department of Territories, and the reports to the General Assembly of the United Nations on trusteeship territories, the anthropological reports of the Governments of Papua and New Guinea, and material appearing in *Oceania*, and the publications of the South Pacific Commission.

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- BELSHAW, C. S. The great village: the economic and social welfare of Hanuabada, an urban community in Papua. Lond., Routledge & K. Paul, 1957. 30s.
 BROWN, P. L. Twelve came back. Lond., Hale, 1957. 18s. (An account of the Australian National Antarctic Research Expedition at Heard Island, 1952–1953).
 DEAN, Beth. Softly, wild drums: in New Guinea to-day with Beth Dean and Victor Carell. Syd., Ure Smith, 1958. 25s.
 GAISSEAU, P. D. Visa to the prehistoric world. Lond., Muller, 1957. 21s. (An account of the remote highland areas of New Guinea.)
 HASLUCK, Hon. P. M. C. Australian policy in Papua and New Guinea. Syd., University of Sydney, 1956. (George Judah Cohen memorial lecture, 1956).
 —Australia's task in Papua and New Guinea. Melb. Australian Institute of International Affairs, 1956. (Roy Milne memorial lecture, 1956).
 HUGHES, BRENDA. New Guinea folk tales. Lond., Harrap, 1959. 6s.
 REAY, MARIE O. The Kuma; freedom and conformity in the New Guinea highlands. Melb., Melbourne Univ. Press, 1959. 45s.
 ROWLEY, C. D. The Australians in German New Guinea 1914–1921. Melb., Melbourne Univ. Press, 1958. 52s. 6d.
 RUHEN, O. Land of Dahori: tales of New Guinea. Phil., Lippincott, 1957. \$3.75.

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- CLARK, C. M. H., ed. Select documents in Australian history 1788–1900: selected and ed. by C. M. H. Clark with the assistance of L. S. Pryor. 2 v. Syd., Angus and Robertson, 1950–1955. 112s.
 —Sources of Australian history: selected and ed. by M. Clark. Lond., Oxford Univ. Press, 1957. 9s. 6d. (World's classics, 558.)
 CRAWFORD, R. M. Australia. Lond., Hutchinson's Univ. Library, 1952. 8s. 6d.
 FITZPATRICK, B. C. British Empire in Australia: an economic history 1834–1939 (2nd ed.). Melb., Melbourne Univ. Press, 1949. 17s. 6d.
 GREENWOOD, G., ed. Australia: a social and political history. Syd., Angus & Robertson, 1955. 45s.
 HISTORICAL RECORDS OF AUSTRALIA: (ed. by J. F. Watson). Syd., Commonwealth National Library, 1914 to 1925. 65s. per v. 34v. have so far appeared. (Publication has been suspended since 1925.)
 HISTORICAL STUDIES: Australia and New Zealand. Melb., Melbourne Univ. Press, 1940 to date. Bi-annual. 21s. per annum.

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- NADEL, G. H. Australia's colonial culture: ideas, men and institutions in mid-nineteenth century eastern Australia: foreword by C. Hartley Grattan. Melb., Cheshire, 1957. 30s.
 O'BRIEN, E. M. The foundation of Australia (1786-1800): a study in English criminal practice and penal colonization in the eighteenth century: (2nd ed.). Syd., Angus and Robertson, 1950. 25s.
 SCOTT, SIR ERNEST. A short history of Australia (8th ed.). Melb., Oxford Univ. Press, 1950. 14s. 6d.
 SHANN, E. O. G. An economic history of Australia. Melb., Georgian House, 1948. 18s.
 SHAW, A. G. L. Economic development of Australia (3rd ed.). Melb., Longmans, Green, 1955. 18s. 9d.
 ———. The story of Australia. Lond., Faber, 1955. 18s. 9d.

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- ADVERTISER NEWSPAPERS LTD. The South Australian story: (story by Max Lamshed). Adel., 1958. 12s. 6d.
 ALLEN, H. C. Bush and backwoods: a comparison of the frontier in Australia and the United States. East Lansing, Michigan State Univ. Press, 1959. 31s. 6d.
 BARRY, J. V. Alexander Maconochie of Norfolk Island: a study of a pioneer in penal reform. Melb., Oxford Univ. Press, 1958. 50s.
 BATESON, C. The convict ships, 1787-1868. Glasgow, Brown, 1959. 36s.
 BROWN, P. L. Clyde Company papers: v. 3, 1841-45. Lond., Oxford Univ. Press, 1958. 68s. (Records of a pastoral company formed in 1836, to operate in the newly settled district of Port Phillip, now Victoria.)
 CILENTO, SIR RAPHAEL W., ed. Triumph in the tropics: an historical sketch of Queensland. Brisb., Smith & Paterson, 1959. 31s.
 COOK, J. The explorations of Captain James Cook in the Pacific as told by selections of his own journals, 1768-1779: ed. by A. Grenfell Price: illus. by Geoffrey C. Ingleton. Melb., Georgian House, 1958. 70s.
 CROWLEY, F. K. A short history of Western Australia. Melb., Macmillan, 1959. 10s. 6d.
 FITZPATRICK, B. C. The Australian commonwealth: a picture of the community. Melb., Cheshire, 1956. 30s.
 GREENWOOD, G., ed. Brisbane 1859-1959: a history of local government. Bris., Oswald L. Ziegler for the Council of the City of Brisbane, 1959. 140s.
 HASLUCK, ALEXANDRA. Unwilling emigrants: a study of the convict period in Western Australia. Melb., Oxford Univ. Press, 1959. 32s. 6d.
 LA NAUZE, J. A. The Hopetoun blunder: the appointment of the first Prime Minister of the Commonwealth of Australia, December, 1900. Melb., Melbourne Univ. Press for Australian Humanities Research Council, 1957. 5s. (Australian Humanities Research Council. Publication no. 1.)
 MARTINDALE, H. G. New crossing place: the story of Seymour and its shire: foreword by G. S. Browne. Melb., Cheshire, 1958. 30s.
 MESTON, A. L. The Van Diemen's Land company, 1825-1842: arranged for publication by W. M. Meston. Launceston, Tas., Launceston City Council, 1958. (Queen Victoria Museum, Launceston. Records, n.s. no. 9.)
 MOYE, D. G., ed. Historic Kiandra: a guide to the history of the district. Cooma, Cooma-Monaro Historical Society, 1959. 7s. 6d.
 MURTAGH, J. G. Australia: the Catholic chapter: (2nd ed.). Syd., Angus and Robertson, 1959. 35s.
 PIKE, D. H. Paradise of dissent: South Australia 1829-1857. Melb., Longmans, Green, 1957. 70s.
 POWNALL, EVE. Mary of Maranoa: tales of Australian pioneer women. Syd., F. H. Johnston, 1959. 32s. 6d.
 SCHOLLS, W. A. The sixth continent. Lond., Allen & Unwin, 1958. 21s. (Includes an Australian chronology, and list of explorers of Australia.)
 SHAW, A. G. L. An introduction to Australian history: by A. G. L. Shaw and H. D. Nicholson. Syd., Angus and Robertson, 1959. 18s. 6d.
 SMOUT, A. H., ed. Queensland centenary: the first 100 years, 1859-1959: Queensland centenary souvenir book: editor, Arthur H. Smout; historian, Leslie A. Slaughter. Bris., Penrod Publishers, 1959. 8s. 6d.
 STRUTT, W. The Australian journal of William Strutt, 1850-1862: ed. by George Mackaness. Syd., Priv. Print., 1958. 31s. 6d. (Australian historical monographs, no. 38.) (Strutt, the artist, depicted many scenes of epic events in Victorian history.)
 VON STIEGLITZ, K. R. The history of Bothwell and its early settlers at the Clyde in Van Diemen's Land. Evandale, Tas., Author, 1958. 6s. 6d.
 WARD, J. M. Earl Grey and the Australian colonies, 1846-1857: a study of self-government and self-interest. Melb., Melbourne Univ. Press, 1958. 63s.
 WEBSTER, MONA S. John McDouall Stuart. Melb., Melbourne Univ. Press, 1958. 42s.

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- AUSTRALIA—Army, Department of—Public Relations Directorate. The Australian army at war: an official record of service in two hemispheres, 1939-45. Melb., 1947.
 AUSTRALIA IN THE WAR OF 1939-45: (ed. by Gavin Long): Canb., Australian War Memorial, 1952., to date. Various prices. (Contents: Series 1 (Army), 5 v. have so far appeared; Series 2 (Navy), 1 v. has so far appeared; Series 3 (Air), 2 v. have so far appeared; Series 4 (Civil), 3 v. have so far appeared; Series 5 (Medical), 3 v. have so far appeared.)
 AUSTRALIAN WAR MEMORIAL, Canberra. Pictorial history of Australia at war, 1939-45: ed. for the Board of Management by Norman Bartlett (and Charles Meeking). Canb., 1958. 210s. 5 v.
 AUSTRALIAN WAR MEMORIAL, Canberra. With the Australians in Korea: ed. . . . by Norman Bartlett. Canb., 1954. 25s.
 BEAN, C. E. W. Anzac to Amiens: a shorter history of the Australian fighting services in the first world war. Canb. Australian War Memorial, 1946. 25s.
 LEE, J. E., Duntroon: the Royal Military College of Australia 1911-1946. Canb., Australian War Memorial, 1952. 30s.

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- NORTON, C. F. *Fighting ships of Australia and New Zealand*: foreword by Vice-Admiral Sir John Collins. Syd., Angus & Robertson, 1953. 7s. 6d.
 OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-1918: (ed. by C. E. W. Bean): 12 v. Canb., Australian War Memorial, 1921-1942. 21s. *per v.* v. 8, 10, 11, 18s.
 OFFICIAL HISTORY OF THE AUSTRALIAN ARMY MEDICAL SERVICES IN THE WAR OF 1914-1918: (ed. by Col. A. G. Butler): 3 v. Canb., Australian War Memorial, 1930-43. 21s. *per v.*

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- ALEXANDER, P. C. *We find and destroy*: history of 458 Squadron. Syd., 458 Squadron Council, 1959. 30s.
 BEAN, C. E. W. *Two men I knew*: William Bridges and Brudenell White. Syd., Angus and Robertson, 1957. 25s.
 HAYWOOD, E. V. *Six years in support*: official history of 2/1st Australian Field Regiment. Syd., Angus and Robertson, 1959. 21s.
 LAFFIN, J. *Digger*: the story of the Australian soldier. Lond., Cassell, 1959. 18s.
 MCCARTHY, D. *South west Pacific area: first year*. Canb., Australian War Memorial, 1959. (Australia in the war of 1939-45: series 1 (Army), v. 5). 30s.
 PAULL, R. A. *Retreat from Kokoda*. Melb., Heinemann, 1958. 30s.
 RYAN, P. A. *Fear drive my feet*. Syd., Angus and Robertson, 1959. 20s. (A personal narrative of the New Guinea campaign.)
 SLIM, Sir William. *Unofficial history*. Lond., Cassell, 1959. 27s. 3d.
 SOUTHAL, I. *Bluey Truscott*: Squadron Leader Keith William Truscott, R.A.A.F., D.F.C. and Bar. Syd., Angus & Robertson, 1958. 25s.
 UREN, M. *A thousand men at war*: the story of the 2/16 battalion, A.I.F. Lond., Heinemann, 1959. 25s.

Religious History.

RECENT PUBLICATIONS OF INTEREST.

- ALEXANDER, F., *ed.* *Four bishops and their See*, Perth, Western Australia 1857-1957. Nedlands, W.A., Univ. of Western Australia Press, 1957. 22s. 6d.
 FITZHARDINGE, L. F. *St. John's Church and Canberra* (2nd ed.): Canb., St. John's Parish Council, 1959. 4s. 6d.
 FRASER, R., *ed.* *A historical sketch of the Diocese of North Queensland*: published to commemorate the 80th anniversary of the founding of the See. Townsville, Corporation of the Diocesan Synod of North Queensland, 1958. 10s.
 GARDINER, LYNDAY B. *Witness in stone*: the story of the Presbyterian Church in north Canberra. Canb., Verity Hewitt, 1958. 7s. 6d.
 GOLDMAN, L. M. *The Jews in Victoria in the nineteenth century*. Melb., Author, 1954. 63s.
 JOHNSON, J. A. *A seed that grew*: a hundred years of Catholic life on the North Shore 1856-1956. Syd., Printed by Cresta Printing Co., 1956. 6s.
 JOSE, G. H. *The Church of England in South Australia 1836-1905*. Adel., Church Office, 1937-1955. 15s. 3 v.
 TAYLOR, H. R. *The history of Churches of Christ in South Australia, 1846-1959*. Adel., Churches of Christ Evangelistic Union, 1959. 12s. 6d.
 WALKER, A. *Heritage without end*: illus. by Frank Whitmore (2nd ed.). Melb., General Conference Literature and Publications Committee of the Methodist Church of Australasia, 1953. 3s. 6d. (An historical account of the Methodist Church in Australia.)
 WEBB, L.C. *The conciliar element in the Anglican tradition*. Canb., St. Mark's Library, 1957. (St. Mark's Library publications, no. 2.)

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- PALMER, E. VANCE. *National portraits* (3rd ed.). Melb., Melbourne Univ. Press, 1954. 15s.
 SERLE, P. *Dictionary of Australian biography*. 2 v. Syd., Angus & Robertson, 1949. 105s.
 WHO'S WHO IN AUSTRALIA. Melb., Herald Press, 1906 to date. 105s. *per issue*. Latest issue: 16th, 1959.

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- ALLEN, G. W. D., *ed.* *Early Georgian*: extracts from the journal of George Allen (1800-1877). Syd., Angus and Robertson, 1958. 25s. (George Allen was the first solicitor to receive his professional training in New South Wales.)
 BISSET, Sir JAMES G. P. *Tramps and ladies*: my early years in steamers: by Sir James-Bisset: written in collaboration with P. R. Stephensen. Syd., Angus and Robertson, 1959. 27s. 6d.
 BOLTON, G. C. *Alexander Forrest*: his life and times. Melb., Melbourne Univ. Press in association with the Univ. of Western Australia Press, 1958. 21s. (This biography of the brother of Lord Forrest deals with his work as an explorer and his activities in pastoral and public life.)
 BRADDON, R. R. *End of a hate*: a sequel to *The naked island*: with which is incorporated *Song of war, a short story*. Lond., Cassell, 1958. 15s. (Reminiscences of a well-known Australian author, covering the end of World War II, return to civil life, and subsequent experiences in Australia and abroad.)
 CHISHOLM, A. R. *Men were my milestones*: Australian portraits and sketches. Melb., Melbourne Univ. Press, 1958. 27s. 6d.
 EARNSHAW, J. Thomas Muir: some account of his exile to New South Wales his adventurous escape in 1796 across the Pacific to California, and thence, by way of New Spain, to France. Cremorne, N.S.W., Stone Copying Co., 1959.

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- HAWKE, JESSICA. Follow my dust. Lond., Heinemann, 1957. 21s. (A biography of Arthur Upfield by his wife.)
- IDRISS, I. L. Flynn of the Inland (new ed.). Syd., Angus and Robertson, 1956. 25s. (Biography of the founder of the Australian Inland Mission and the Flying Doctor Service.)
- LINDSAY, J. Life rarely tells: an autobiographical account ending in the year 1921 and situated mostly in Brisbane, Queensland. Lond., Bodley Head, 1958. 21s. (An account of the early life of a well known Australian writer who is a son of Norman Lindsay.)
- MCCANN, F. B. Medicine man. Syd., Angus and Robertson, 1959. 17s. 6d. (Experiences of a medical officer in the Northern Territory.)
- MARTIN, A. W. Members of the Legislative Assembly of New South Wales, 1856-1901: biographical notes by A. W. Martin and P. Wardle. Canb., Australian National University, 1959. 22s. 6d. (Australian National University. Social science monographs, 16.)
- MAWSON, FRANCISCA A., *Lady*. A vision of steel: the life of G. D. Delprat, general manager of B.H.P. 1898-1921: by Paquita Mawson: foreword by R. G. Menzies and an introd. by Essington Lewis: epilogue by N. R. Wills. Melb., Cheshire, 1958. 42s.
- NEW, E. W. A doctor in Korea: the story of Charles McLaren. Syd., Australian Presbyterian Board of Missions, 1958. 10s. 6d.
- RUSSELL, W. B. There goes a man: the biography of Sir Stanley G. Savage. Melb., Longmans, 1959. 25s. (Savage was a soldier of both World Wars and a founder of the Legacy Club.)
- SPENCER, A. H. The hill of content: books, art, music, people. Syd., Angus and Robertson, 1959. 30s.
- SPENCER, MARGARET. Doctor's wife in New Guinea. Syd., Angus and Robertson, 1959. 22s. 6d.
- TAYLOR, T. G. Journeymen Taylor: the education of a scientist. Lond., Hale, 1958. 25s. (This autobiography of the well-known geographer includes an account of his experiences as Senior Geologist to Captain Scott's second Antarctic expedition.)
- THOMAS, W. C. Living on air: some of the memories of Wilfrid Thomas. Lond., Muller, 1958. 16s. (Reminiscences of the well-known broadcasting personality.)
- WADHAM, SIR SAMUEL M. Sir Samuel Wadham: selected addresses with a biographical study by Geoffrey Blainey. Melb., S. M. Wadham Testimonial Fund Committee, 1957.
- WHYTE, W. F. William Morris Hughes: his life and times. Syd., Angus and Robertson, 1957. 50s. (W. M. Hughes, one of the most widely-known politicians in the history of the Commonwealth sat in the Federal Parliament from 1901 to the time of his death in 1952. He was Prime Minister during World War I.)
- WRIGHT, JUDITH A. The generations of men: illus. by Alison Forbes. Melb., Oxford Univ. Press, 1959. 45s. (Family history of the well known Australian poet.)

Education.

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- AUSTRALIA—Committee on Australian Universities. Report. Canb., Govt. Pr., 1957.
- AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH. The early years: a summary of an enquiry into age of admission, classification and promotion practices in Australian primary schools. Melb., 1957. 1s.
- Review of education in Australia 1948-1954: ed. by R. M. McDonnell, W. C. Radford and P. M. Staurenghi. Melb., 1956. 40s.
- AUSTRALIAN LIBRARY JOURNAL. Syd., Library Association of Australia, 1951 to date. Quarterly. 20s. per annum.
- BUTTS, R. F. Assumptions underlying Australian education. Melb., Australian Council for Educational Research, 1955. 12s.
- COLE, P. R., ed. The rural school in Australia. Melb., Melbourne Univ. Press, 1937. 10s.
- RADFORD, W. C., comp. The non-government schools of Australia: a descriptive and statistical account. Melb., Melbourne Univ. Press, for Australian Council for Educational Research, 1953. 21s.
- RAYNER, S. A. Correspondence education in Australia and New Zealand. Melb., Melbourne Univ. Press, 1949. 10s.

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- ALEXANDER, F. Adult education in Australia: an historian's point of view. Melb., Cheshire, 1959. 6s. 6d.
- ANCHEN, J. O. Frank Tate and his work for education. Melb., Australian Council for Educational Research, 1956. 30s. (A.C.E.R. research series no. 69.)
- AUSTIN, A. G. George William Rusden and national education in Australia, 1849-1862. Melb., Melbourne Univ. Press, 1958. 27s.
- AUSTRALIA—Commonwealth Office of Education. Higher education in Australia: a directory of courses (2nd. ed.). Syd., 1959. gratis. Processed.
- BLAINY, G. A centenary history of the University of Melbourne. Melb., Melbourne Univ. Press, 1957. 37s. 6d.
- CRANE, A. R. Peter Board: his contribution to the development of education in New South Wales: by A. R. Crane and W. G. Walker. Melb., Australian Council for Educational Research, 1957. 30s. (A.C.E.R. research series, no. 71.)
- DIMMACK, M. Modern art education in the primary school. Melb., Macmillan, 1958. 42s.
- DRUMMOND, D. H. A university is born: the story of the founding of the University College of New England. Syd., Angus and Robertson, 1959. 25s.
- FOGARTY, R. Catholic education in Australia, 1806-1950. Melb., Melbourne Univ. Press, 1959. 100s.
- FRENCH, E. L. Melbourne studies in education, 1957-58. Melb., Melbourne Univ. Press, 1958. 25s.
- GRIFFITHS, D. C., comp. Documents on the establishment of education in New South Wales, 1789-1880. Melb., Australian Council for Educational Research, 1957. 30s. (A.C.E.R. research series, no. 70.)
- HARDIE, C. D., ed. Science in Australian primary schools: (contributions by C. D. Hardie and others). Melb., Melbourne Univ. Press, 1957. 21s.
- MITCHELL, A. W. The key to your career: by A. W. Mitchell and R. R. Belshaw. Melb., Hall's Book Store, 1959. 35s.

Constitution and Administration.

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- AUSTRALIA—*Laws, Statutes, etc.* The Acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1950: to which is prefixed the Commonwealth of Australia Constitution Act . . . as altered to 31st December, 1950, with notes of cases, tables and indexes. Syd., Law Book Co., 1952-1955. 420s. 6 v. (Acts passed since 1950 are included in annual supplementary volumes.)
- Prime Minister's Department.* The Federal Guide: a handbook of the organization and functions of Commonwealth government departments: August, 1958. Canb., 1958.
- Supplement . . . an alphabetical directory.* October, 1959. Canb., 1959.
- Royal Commission on the Constitution of the Commonwealth.* Report. Canb., 1929. 10s. 6d.
- AUSTRALIAN DIGEST, 1825-1954: being a digest of the reported decisions of the Australian Courts and of Australian appeals to the Privy Council: with table of cases, ed. by B. Sugerman and others: supplements, 1934 to date. Syd., Law Book Co., 1934 to date.
- AUSTRALIAN LAW JOURNAL. Syd., Law Book Co., 1927 to date. 95s. per annum.
- CAMPBELL, W. J. Australian state public finance. Syd., Law Book Co., 1954. 50s.
- COMMONWEALTH LAW REPORTS. Syd., Law Book Co., 1903 to date. Annual. 80s.
- CRAIG, JEAN I., *comp.* Bibliography of public administration in Australia: (1850-1947): introd. by T. H. Kewley. Syd., Department of Government and Public Administration, University of Sydney, 1955. 20s.
- CRISP, L. F. Parliamentary government of the Commonwealth of Australia (2nd ed.). Lond., Longmans, Green, 1954. 21s.
- FOENANDER, O. de R. Better employment relations and other essays in labour. Syd., Law Book Co., 1954. 30s.
- FRIEDMANN, W. G. Principles of Australian administrative law. Melb., Melbourne Univ. Press, 1950. 12s. 6d.
- MILLER, J. D. B. Australian government and politics, an introductory survey. Lond., Duckworth, 1954. 15s.
- NICHOLAS, H. S. The Australian constitution . . . an analysis (2nd ed.). Syd., Law Book Co., 1952. 70s.
- PATON, G. W., *ed.* The Commonwealth of Australia: the development of its laws and constitution. Lond., Stevens, 1952. 55s.
- PERLMAN, M. Judges in industry: a study of labour arbitration in Australia. Melb., Melbourne Univ. Press, 1954. 37s. 6d.
- PUBLIC ADMINISTRATION. Syd., Institute of Public Administration, 1939 to date. Quarterly. 5s. per issue.
- SAWER, G. Australian government to-day (6th ed.). Melb., Melbourne Univ. Press, 1958. 4s. 6d.
- Cases on the constitution of the Commonwealth of Australia: selected and annotated by Geoffrey Sawyer: (2nd ed.). Syd., Law Book Co., 1957. 70s.
- WYNES, W. A. Legislative, executive and judicial powers in Australia: being a treatise on the distribution of legislative, executive and judicial powers of Commonwealth and States under the Commonwealth of Australia Constitution Act (2nd ed.). Syd., Law Book Co., 1956. 95s.

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- AUSTRALIA—*Parliament.* An introduction to the Australian Federal Parliament: prepared under instructions from the . . . President of the Senate. Syd., Angus and Robertson, 1959. 30s.
- Committee of Inquiry into Public Service Recruitment.* Report. Canb., Govt. Pr., 1958. (Sir Richard Boyer, chairman.)
- AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—*Spring Forum, Armidale*, 1955. New states for Australia: by R. S. Parker . . . (and others). Syd., 1955. 12s. 6d.
- Summer School, 24th Canberra, Jan., 1958.* New Guinea and Australia: (papers read at the Summer School: ed. by John Wilkes: introd. by D. M. Cleland). Syd., Angus and Robertson, 1958. 25s.
- BLAIR, L. C. L. The Commonwealth Public Service. Melb., Melbourne Univ. Press, 1958. 9s. 6d.
- COWEN, Z. Federal jurisdiction in Australia. Melb., Oxford Univ. Press, 1959. 40s.
- FOENANDER, O. de R. Industrial conciliation and arbitration in Australia. Syd., Law Book Co., 1959. 55s.
- HARDING, E. Uniform railway gauge. Melb. Lothian, 1958. 30s. (An account of the origin of the break of gauge in Australia, and the various projects to overcome it.)
- HARVARD UNIVERSITY—*International Program in Taxation.* Taxation in Australia: (prepared by Harvard Law School, International Program in consultation with the United Nations Secretariat. Boston, Little, Brown, 1958. \$10. Joint work of Walter W. Brudno and a research group in the Faculty of Law of the University of Sydney under the direction of K. O. Shatwell).
- MELBOURNE UNIVERSITY—*Department of Political Science.* The government of Victoria: an analysis of the machinery of state. Melb., Melbourne Univ. Press, 1958. 12s. 6d.
- RATCHFORD, B. U. Public expenditures in Australia. Durham, N. C., Duke Univ. Press, 1959. \$7.50. (Duke University Commonwealth Studies Center. Publication No. 11.)
- SCARROW, H. A. The higher public service of the Commonwealth of Australia. Durham, N. C., Duke Univ. Press, 1957. \$3.50. (Duke University Commonwealth Studies Centre Publication.)
- VON STIEGLITZ, K. R. A history of local government in Tasmania from the earliest settlement of Van Diemen's Land to the present time. Hobart, Municipal Association of Tasmania, 1958. 15s.

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- AUSTRALIAN ENCYCLOPAEDIA OF FORMS AND PRECEDENTS OTHER THAN COURT FORMS. Syd., Butterworth, 1955 to date. 97s. 6d. per v. (11 v. and three supplements have so far been issued.)
- BAALMAN, J. Outline of law in Australia (2nd ed.). Syd., Law Book Co., 1955. 25s.
- DAWES, E. N. Australian proprietary and private companies: law and management. Syd., Butterworth, 1955. 52s. 6d.
- FLEMING, J. G. The law of torts. Syd., Law Book Co., 1957. 84s.
- FORD, H. A. J. Cases on trusts: selected and ed. by H. A. J. Ford. Syd., Law Book Co., 1959. 95s.
- GUNN, J. A. L. Commonwealth income tax law and practice: by J. A. L. Gunn in collaboration with O. E. Berger, R. E. O'Neill and M. Maas: 5th ed. Syd., Butterworth, 1957. 168s.

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- GUNN, J. A. L. Guide to Commonwealth income tax: by J. A. L. Gunn and R. E. O'Neill (9th ed.). Syd., Butterworth, 1959. 42s.
- HARRISON, W. N. L. Cases on land law: selected and ed. by W. N. Harrison. Syd., Law Book Co., 1958. 95s.
- JOSKE, P. E. The law of partnership in Australia and New Zealand. Syd., Butterworth, 1957. 32s. 6d.
- LAW INSTITUTE OF VICTORIA—Centenary Year Council. The Law Institute of Victoria, 1859–1959. Melb., 1959. 21s.
- MAZENGERB, O. C. The law and practice relating to actions for negligence on the highway: (3rd. ed.). Syd., Butterworth, 1957. 75s.
- NOLAN, J. R. W. Nolan and Cohen's industrial laws annotated; bk. 1: federal law: (2nd ed.): by C. P. Mills. Syd., Butterworth, 1957. 105s.
- PORTUS, J. H. The development of Australian trade union law. Melb., Melbourne Univ. Press, 1958, 57s. 6d.
- RUOFF, T. B. F. An Englishman looks at the Torrens system (being some provocative essays on the operation of the system after one hundred years). Syd., Law Book Co., 1957. 25s.
- STONE, J. Aggression and world order: a critique of United Nations theories of aggression. Syd. Maitland Publications, 1958. 40s.
- WALKER, R. E. The practice of the Supreme Court of New South Wales at common law: 4th ed. Syd., Law Book Co., 1958. 210s.
- YORSTON, R. K. Australian mercantile law: by R. K. Yorston and E. E. Fortescue (9th ed.). Syd., Law Book Co., 1957. 45s.

Political History and International Relations.

STANDARD WORKS IN PRINT.

- AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—Victorian Group—Winter forum, Melbourne, 1953. The Australian political party system: by S. R. Davis (and others). Syd., Angus & Robertson, 1954. 12s. 6d.
- AUSTRALIAN JOURNAL OF POLITICS AND HISTORY. Brisb., Univ. of Queensland Press, 1955 to date. 12s. 6d. per issue.
- AUSTRALIAN OUTLOOK (INCORPORATING THE AUSTRAL-ASIATIC BULLETIN). Syd., Australian Institute of International Affairs, 1947 to date. Quarterly. 5s. per issue.
- CRISP, L. F. The Australian federal labour party, 1901–1951. Lond., Longmans, Green, 1955. 25s.
- CURRENT NOTES ON INTERNATIONAL AFFAIRS: v. 1 to date. Canb., Dept. of External Affairs, 1936 to date. Monthly. gratis.
- DEAKIN, Rt. Hon. A. The federal story: the inner history of the federal cause: foreword by the Rt. Hon. W. A. Watt: ed. by Herbert Brookes. Melb., Robertson & Mullens, 1944. 12s. 6d.
- EGGLESTON, Sir FREDERIC W. Reflections of an Australian liberal. Melb., Cheshire for the Australian National University, 1952. 27s. 6d.
- Reflections on Australian foreign policy: ed. by Norman Harper. Melb., Cheshire for the Australian Institute of International Affairs, 1957. 30s.
- EVATT, Rt. Hon. H. V. Australian labour leader: the story of W. A. Holman and the labour movement (3rd, abridged, ed.). Syd., Angus & Robertson, 1954. 30s.
- GREENWOOD, G., ed. Australia in world affairs, 1950–55: ed. by Gordon Greenwood and Norman Harper. Melb., Cheshire, 1957. 45s.
- NATION: an independent journal of opinion: no. 1, Sept. 26, 1958. Syd., National Review Company, 1958 to date. Fortnightly. 1s. 6d. per issue.
- OBSERVER: no. 1, Feb. 22, 1958. Syd., Australian Consolidated Press, 1958 to date. Fortnightly. 1s. per issue.
- PARLIAMENTARY HANDBOOK OF THE COMMONWEALTH OF AUSTRALIA. Canb., Commonwealth National Library, 1915 to date. 42s. per issue. (Latest issue: 13th, 1959.)

RECENT PUBLICATIONS OF INTEREST.

- CALWELL, A. A. The Australian Labor Party and foreign policy. Melb., Australian Institute of International Affairs, 1959. 2s. (Roy Milne memorial lecture, 1959.)
- DAVIES, A. F. Australian democracy: an introduction to the political system. Melb., Longmans, Green, 1958. 19s. 6d.
- DEAKIN, Rt. Hon. A. The crisis in Victorian politics, 1879–1881: a personal retrospect: ed. by J. A. La Nauze and R. M. Crawford. Melb., Melbourne Univ. Press, 1957. 25s.
- ELLIS, U. R. The Country Party: a political and social history of the party in New South Wales. Melb., Cheshire, 1958. 32s. 6d.
- GARRAN, Sir ROBERT R. Prosper the Commonwealth. Syd., Angus and Robertson (1958). 50s. (Sir Robert Garran entered the Federal Public Service in 1901, after taking a leading part in the movement towards Federation. He was Solicitor-General from 1916 to 1932.)
- HARPER, N. D. Australia and the United Nations: by Norman Harper and David Sissons. N.Y., Manhattan Pub. Co., 1959. 35s. (National studies on international organization.)
- HAYLEN, L. C. Chinese journey: the Republic revisited. Syd., Angus and Robertson, 1959. 27s. 6d. (The author was one of a delegation of three Australian Labor Party Parliamentarians to visit China in 1957.)
- LEGGE, J. D. Britain in Fiji, 1858–1880. Lond., Macmillan in association with Univ. of Western Australia Press, 1958. 21s.
- MENZIES, Rt. Hon. R. G. Speech is of time: selected speeches and writings. Lond., Cassell, 1958. 18s. (This selection relates largely to international affairs and the problems of contemporary society.)
- SAWER, G. Australian federal politics and law 1901–1929. Melb., Melbourne Univ. Press, 1956. 57s. 6d.
- TRUMAN, T. C. Catholic action and politics. Melb., Georgian House, 1959. 35s.
- WEBB, L. C. Legal personality and political pluralism. Melb., Melbourne Univ. Press on behalf of Australian National University, 1958. 30s. (Australian National University, Canberra. Social science monographs, 12.)
- WHITTINGTON, D. The house will divide: a review of Australian federal politics in the past twenty-five years. Melb., Georgian House, 1956. 21s.
- Ring the bells: a dictionary of Australian federal politics. Melb., Georgian House, 1956. 21s.

Economic and Social Conditions.

STANDARD WORKS IN PRINT.

- ARNDT, H. W. The Australian trading banks. Melb., Cheshire, 1957. 27s. 6d.
- AUSTRALIA—*Census and Statistics, Commonwealth Bureau of.* Quarterly Summary of Australian Statistics: 1912 to date. Canb., 1912 to date. 2s. 6d. *per issue.*
- AUSTRALIA—*Treasury, Department of the.* National income and expenditure: 1938–39 to 1945–46 to date. Canb., 1946 to date. Annual. 1s. 6d. *per issue.*
- The Australian Economy, Canb., Govt. Pr. 1956.
- AUSTRALIA AND NEW ZEALAND BANK LIMITED. Quarterly survey. Melb., 1951 to date. *gratis.*
- AUSTRALIAN FINANCIAL REVIEW. Syd., Sydney Morning Herald, 1951 to date. Weekly. 1s. 6d. *per issue.*
- BANK OF NEW SOUTH WALES REVIEW. Syd., 1950 to date. Quarterly.
- COMMONWEALTH BANK OF AUSTRALIA. Statistical bulletin. Syd., 1937 to date. Monthly. *gratis.*
- DOWNING, R. I. National income and social accounts: an Australian study (2nd ed.). Melb., Melbourne Univ. Press, 1957. 6s.
- ECONOMIC RECORD: the journal of the Economic Society of Australia and New Zealand. Melb., Melbourne Univ. Press, 1925 to date. Three issues a year. 13s. 6d. *per issue.*
- ELKIN, A. P., *ed.* Marriage and the family in Australia. Syd., Angus and Robertson, 1957. 27s. 6d.
- GIBLIN, L. F. The growth of a central bank: the development of the Commonwealth Bank of Australia, 1924–1945. Melb., Melbourne Univ. Press, 1951. 30s.
- GIFFORD, J. L. K. Australian banking: by J. K. Gifford, J. Vivian Wood and A. J. Reitsma (3rd ed.). Brisb., Univ. of Queensland Press, 1958. 52s. 6d.
- NATIONAL BANK OF AUSTRALASIA. Monthly summary of Australian conditions. Melb., 1926 to date.
- TREASURY INFORMATION BULLETIN. Canb., Treasury Dept., 1956 to date.
- WALKER, K. F. Industrial relations in Australia. Camb., Mass., Harvard Univ. Press, 1956. 73s. 6d. (Wertheim publications in industrial relations.)

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIA—*Labour and National Service, Department of.* Wage incentives in Australian industry: principles and cases. Canb., Govt. Pr., 1959. 10s.
- AUSTRALIA AND NEW ZEALAND BANK LIMITED—*Economics and Statistical Department.* Australia's continuing development: an introduction to the more important aspects of the Australian economy: (3rd ed.). Melb., Australia and New Zealand Bank Limited (and) Australia and New Zealand Savings Bank Limited, 1958. *gratis.*
- AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—*Summer school, 25th, Canberra, Jan., 1959.* Trade unions in Australia. Syd., Angus and Robertson, 1959. 25s.
- BLAINIEY, G. Gold and paper: a history of the National Bank of Australasia Limited. Melb., Georgian House, 1958. 42s.
- CLARK, C. G. Australian hopes and fears. Lond., Hollis & Carter, 1958. 30s.
- CLARK, J. F. Pre-television social survey: the interests and activities of families in Sydney: (by) J. F. Clark (and) A. Olley. Syd., New South Wales University of Technology, School of Applied Psychology, 1958. 105s.
- COOMBS, H. C. Rural credit developments in Australia. Syd., Australian Agricultural Economics Society, 1959.
- COPLAND, Sir Douglas B., *ed.* The conflict of expansion and stability: documents relating to Australian economic policy 1945–52: ed. by D. B. Copland and R. H. Barback. Melb., Cheshire, 1957. 67s. 6d.
- CUMBERLAND COUNTY COUNCIL. Growth of population in Australia and the County of Cumberland. Syd., 1959. *gratis.*
- DOWNING, R. I. National superannuation: means test or contributions? Adel., University of Adelaide, 1958. *gratis.*
- FINANCIAL TIMES, *newspaper.* Australia: a survey. Lond., 1959.
- HILL, M. R. Housing finance in Australia, 1945–1956. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1959. 45s. (A.N.U. Social science monograph, 14.)
- HUDSON, Harry. Flynn's flying doctors: an artist's journey through the outback and the story of the flying doctor service in Australia. Melb., Heinemann, 1956. 25s.
- INSTITUTE OF PUBLIC AFFAIRS, *Victoria.* The balance of payments and development. Melb., 1959. *gratis.*
- JONES, E. H. Principles and practice of industrial and commercial organization in Australia. Syd., Law Book Co., 1957. 32s. 6d.
- LODEWYCK, A. People of Australia: a study in population problems. Melb., Cheshire, 1956. 30s.
- MACKAY, I. K. Broadcasting in Australia. Melb., Melbourne Univ. Press, 1957. 25s.
- NANKERVIS, F. T. Descriptive economics: the Australian economic structure (4th ed.): Melb., Longmans Green, 1959. 21s. 6d.
- NATIONAL BANK OF AUSTRALASIA. Housing in Australia. Melb., 1959. *gratis.*
- PAN-PACIFIC REHABILITATION CONFERENCE, 1st, *Sydney, Nov. 10–14, 1958.* Conquering physical handicaps: official proceedings of the . . . Conference. Syd., Australian Advisory Council for the Physically Handicapped, 1959. 30s.
- SCOTT, W. Australia and the challenge of change: being a study of the second industrial revolution and its possible effects upon Australia. Syd., Law Book Co., 1957. 75s.
- STACY, E. MARILYN. A survey of the employment problems of the physically handicapped persons in New South Wales: by E. Marilyn Stacy in collaboration with S. M. Baker. Syd., Council of Social Service of New South Wales, 1958. *gratis.*
- THOMSON, R. J. Television crime-drama: its impact on children and adolescents. Melb., Cheshire for Department of Audio-Visual Aids, University of Melbourne, 1957. 25s.
- WHEELWRIGHT, E. L. Ownership and control of Australian companies. Syd., Law Book Co., 1957. 42s.
- YORSTON, R. K., *ed.* The Australian commercial dictionary: being definitions of accounting, business and legal words, phrases, and abbreviations: associate eds. L. Goldberg, D. M. Hocking and J. P. C. Watson (3rd ed.): Syd., Law Book Co., 1957. 27s. 6d.

Industries, Resources and Trade.

STANDARD WORKS IN PRINT.

- ANDREWS, J. *Australia's resources and their utilization* (4th ed.). Syd., Department of Tutorial Classes, University of Sydney, 1953. 6s.
- AUSTRALASIAN INSTITUTE OF MINING AND METALLURGY. *Proceedings: new series*. Melb., 1912 to date. Quarterly.
- AUSTRALASIAN MANUFACTURER ANNUAL. Syd., Manufacturer Publishing Co., 1931 to date. 40s. per annum.
- AUSTRALIA—*Agricultural Economics, Bureau of*. Quarterly review of agricultural economics. Canb., 1948 to date. gratis.
- AUSTRALIA—*National Development, Department of*. Atlas of Australian resources. Canb., 1953 to date. 25 maps of the proposed 30 have been published: Rainfall, Soils, Underground water, Temperatures, Mineral deposits, Climatic regions, Major developmental projects, Agricultural production, State and local government areas, Roads and aerodromes, Railways, Physical features, Population, Increase and decrease 1933-1947, 1947-1954, Forest resources, Population density and distribution, Power and fuel, Distribution of stock, Vegetation regions, Drainage systems, Conservation of surface water, Health services, Education facilities, Ports and shipping, Dominant land use. 10s. 6d. ea., linen-stripped, 12s. 6d. ea. (These maps are accompanied by a commentary, which is included in the price.)
- AUSTRALIA—*National Development, Department of—Division of Industrial Development*. The structure and capacity of Australian manufacturing industries. Melb., 1952. 60s. (Distributed by Angus and Robertson.)
- AUSTRALIA TO-DAY: special number of the Australian Traveller. Melb., United Commercial Travellers Association of Australia, 1905 to date. Annual. 8s. per issue.
- BEATTIE, W. A. A survey of the beef-cattle industry of Australia. Melb., C.S.I.R.O., 1956. (C.S.I.R.O. bulletin: no. 278.)
- CALLAGHAN, A. R. The wheat industry in Australia: by A. R. Callaghan and A. J. Millington. Syd., Angus and Robertson, 1956. 63s.
- DAVIDSON, F. G. The industrialization of Australia. Melb., Melbourne Univ. Press, 1957. 3s. 6d.
- EMPIRE MINING AND METALLURGY CONGRESS, 5th *Australia and New Zealand*, 1952. Publications. Melb., A'asian Institute of Mining and Metallurgy, 1953.
- GREAT BRITAIN—*Commercial Relations and Exports Department*. Australia: economic and commercial conditions in Australia. Lond., H.M.S.O., 1921 to date. Latest issue: 1954. 7s. 6d.
- JAMES, W. Wine in Australia: a handbook (2nd ed.). Melb., Georgian House, 1955. 21s.
- MAJOR DEVELOPMENTAL PROJECTS: Australia. Canb., Department of National Development, 1954 to date. gratis.
- NEW SOUTH WALES—*Premier's Department*. Preliminary survey of resources (of various regions). Syd., Govt. Pr., 1945 to date. (This series aims at covering all regions of New South Wales. So far the following have been issued:—New England; Illawarra; Lachlan; Murrumbidgee; Macquarie; Central Murray; Upper Murray; Richmond-Tweed; Clarence; Southern Tablelands; Newcastle; Monaro-South Coast; Namoi; Upper Hunter; Oxley; Mitchell.)
- NICHOLSON, D. F. Australia's trade relations: an outline history of Australia's oversea trading arrangements. Melb., Cheshire, 1955. 42s.
- PASTORAL REVIEW AND GRAZERS' RECORD. Melb., Pastoral Review, 1891 to date. 55s. per annum.
- ROUGHLEY, T. C. Fish and fisheries of Australia (3rd ed.). Syd., Angus & Robertson, 1953. 55s.
- SHANNON, I. Rural industries in the Australian economy. Melb., Cheshire, 1955. 22s. 6d.
- VICTORIA—*Central Planning Authority*. Resources survey. Melb., 1948 to date. Various prices. (Surveys for the following regions have so far been published: Loddon; Mallee; Upper Goulburn; Upper Murray; Central Highlands; East Gippsland; and Corangamite.)
- WILLS, N. R., ed. Australia's power resources: papers read at the 1954 winter forum of the Victorian group of the Australian Institute of Political Science: by H. Messel (and others). Melb., Cheshire, 1955. 18s. 6d.

RECENT PUBLICATIONS OF INTEREST.

- ALLBUTT, G. A brief history of some of the features of public electricity supply in Australia and the formation and development of the Electricity Supply Association of Australia, 1918-1957. Melb., Electricity Supply Association of Australia, 1958. 45s.
- ATKINSON, H. The first ten, 1948-1958. Syd., Edwards & Shaw, 1959. A history of the tailoring firm of Anthony Squires.
- AUSTRALIA—*Agricultural Economics, Bureau of*. The economics of crop fattening of beef cattle in southern and central Queensland. Canb., 1958. gratis.
- Export Development Council*. Australian export trends and prospects. Melb., 1959. gratis.
- National Development, Department of*. The supply and usage of energy in Australia. Canb., 1958. gratis.
- Primary Industry, Department of—Marketing Division*. Agricultural co-operation in Australia (a guide to administrative procedures). Canb., 1957.
- Trade, Department of*. Developments in Australian manufacturing industry. Melb., 1957. gratis.
- Industries Division*. Notes on Australia's industrial capacity, March, 1958. Melb., 1958. gratis.
- United States investment in Australian manufacturing industry. Melb., 1959. gratis.
- AUSTRALIA AND NEW ZEALAND BANK LIMITED—*Economics and Statistical Department*. Establishment of industry in Australia for businessmen considering establishing or extending business in Australia. Melb., Australia and New Zealand Bank Limited (and) Australia and New Zealand Savings Bank Limited, 1958. gratis.
- BARNARD, A. The Australian wool market, 1840-1900. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1958. 35s.
- BRITISH COMMONWEALTH FORESTRY CONFERENCE, 7th, *Australia and New Zealand*, 26th Aug.-10th Oct., 1957. Proceedings. Canb., Govt. Pr., 1958. 20s.
- COLONIAL SUGAR REFINING COMPANY LTD. South Pacific enterprise: the Colonial Sugar Refining Company Limited. Syd., Angus & Robertson, 1956. 42s.

Industries, Resources and Trade—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- DOWNNEY, L. A. Pig-raising: 2nd ed. Syd., Angus and Robertson, 1958. (Agricultural and livestock series.) 45s.
- GUTHRIE, J. F. A world history of sheep and wool. Melb., Printed by McCarron Bird, 1957. 45s.
- HODGE, J. E. Green fields and pastures new; (3rd ed.). Adel., Hodge and Sons, 1959. 20s. An account of experiments in soil conservation and pasture improvement in South Australia.
- JAMES, W. A word book of wine. Melb., Georgian House, 1959. 26s.
- KELLEY, R. B. Native and adopted cattle. Syd., Angus and Robertson, 1959. 50s.
- KEMPE, H. C. The astonished earth: foreword by Sir R. George Stapledon: illus. drawings by John C. Goodchild. Melb., Heinemann, 1958. 30s. (The author settled on a barren stretch of River Murray country in 1939. This book relates how the property was transformed to rich pasture land).
- NATIONAL BANK OF AUSTRALASIA. Investing in Australia? a guide for companies. Melb., 1958. gratis.
- RYDGE'S BUSINESS JOURNAL. The Australian businessman's handbook: (ed. by T. J. Storey): (2nd ed.). Syd., 1959. 84s.
- SHERARD, H. M. Australian road practice: an introduction to highway engineering. Melb., Melbourne Univ. Press, 1958. 105s.
- WADHAM, Sir SAMUEL M. Land utilization in Australia: (3rd ed. by Sir Samuel Wadham, R. Kent Wilson and Joyce Wood.) Melb., Melbourne Univ. Press, 1957. 40s.
- WILLIAMS, D. B. Economic and technical problems of Australia's rural industries. Melb., Melbourne Univ. Press, 1957. 27s. 6d.
- YEOMANS, P. A. The challenge of landscape: the development and practice of keyline. Syd., Keyline Publishing Co., 1958. 79s. 6d. (An account of the results of a new method of soil conservation and pasture improvement.)

Science and Technology.

STANDARD WORKS IN PRINT.

- AUSTRALIA—Commonwealth Scientific and Industrial Research Organization. A manual of Australian soils: by C. G. Stephens. Melb., 1953. 25s.
- AUSTRALIA—Meteorology, Bureau of. Climatological atlas of Australia. Melb., 1940. 10s. 6d.
- AUSTRALIAN ACCOUNTANCY PROGRESS. Syd., Butterworth, 1954 to date. Annual. 37s. 6d.
- AUSTRALIAN JOURNAL OF BIOLOGICAL SCIENCES. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. per annum.
- AUSTRALIAN JOURNAL OF CHEMISTRY. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. per annum.
- AUSTRALIAN JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICAL SCIENCE. Adel., Medical Sciences Club, University of Adelaide, 1924 to date. Bi-monthly. 60s. per annum.
- AUSTRALIAN JOURNAL OF PHYSICS. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. per annum.
- AUSTRALIAN JOURNAL OF SCIENCE. Syd., Australian and New Zealand Association for the Advancement of Science, 1938 to date. Bi-monthly. 40s. per annum.
- AUSTRALIAN VETERINARY JOURNAL. Syd., Australian Veterinary Association. Monthly. 1925 to date. 80s. per annum.
- AUSTRALIAN ZOOLOGIST. Syd., Royal Zoological Society of N.S.W., 1914 to date Annually. 12s. 6d. per issue.
- BARRIE, D. M. The Australian Bloodhorse. Syd., Angus and Robertson, 1956. 126s.
- BELSCHNER, H. G. Sheep management and diseases: (5th ed.). Syd., Angus and Robertson, 1957. 105s. (Agricultural and livestock series.)
- CLARK, J. The formicidae of Australia: v. 1. Melb., C.S.I.R.O., 1952. 25s.
- DAVID, Sir T. W. Edgeworth. Geology of the Commonwealth of Australia: ed. and much supplemented by W. R. Browne. Lond., E. Arnold, 1950. 252s.
- GANDEVIA, B. An annotated bibliography of the history of medicine in Australia. Syd., A'sian Medical Pub. Co., 1957. 35s. (British Medical Association in Australia—Federal Council Monographs 1).
- HUNGERFORD, T. C. Diseases of livestock (4th ed.). Syd., Angus and Robertson, 1959. 80s.
- INSTITUTION OF ENGINEERS OF AUSTRALIA. Journal. Syd., 1929 to date. Monthly. 105s. per annum.
- KELLEY, R. B. Sheep dogs: their breeding, maintenance and training: (3rd ed.). (reprint) Syd., Angus and Robertson, 1958. 25s. (Agricultural and livestock series.)
- LASERON, C. F. Ancient Australia: the story of its past geography and life. Syd., Angus & Robertson, 1954. 25s.
- The face of Australia: the shaping of a continent: maps and sketches by the author (2nd ed.). Syd., Angus and Robertson, 1954. 25s.
- McLUCKIE, J. Australian and New Zealand botany: by John McLuckie and H. S. McKee. Syd., associated General Publications, 1956. 84s.
- MEDICAL JOURNAL OF AUSTRALIA. Syd., A'sian Medical Pub. Co., 1856 to date. Weekly. 3s. per issue.
- MUELLERIA. Melb., National Herbarium, 1955 to date.
- MUSGRAVE, A., comp. Bibliography of Australian entomology: 1775–1930. Syd., Royal Zoological Society of New South Wales, 1932. 10s.
- REHN, A. G. The grasshoppers and locusts (acridoidea) of Australia: v. 1–3. Canb., C.S.I.R.O., 1952–1957.
- ROBERTS, F. H. S. Insects affecting live-stock with special reference to important species occurring in Australia. Syd., Angus and Robertson, 1952. 45s.
- See also publications of Australian and New Zealand Association for the Advancement of Science, Australian Institute of Agricultural Science, Commonwealth Scientific and Industrial Research Organization, Commonwealth Bureau of Mineral Resources, Commonwealth Solar Observatory, Royal Australian Chemical Institute, the Royal Societies, the Universities, the scientific institutions, and works under the headings *Aborigines* and *Natural History* in this list.

Science and Technology—continued.

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIAN ATOMIC ENERGY SYMPOSIUM, *Sydney*, 2-6 June, 1958. Proceedings. Melb., Melbourne Univ Press, 1959. 105s.
- BOK, B. J. The astronomer's universe. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1958. 21s. (Based on lectures given at the Canberra University College, Oct., 1957, and at the Summer School, School of Physics, University of Sydney, Jan. 1958.)
- COLE, V. G. Graziers' handbook of diseases of sheep, beef cattle, horses, dogs: (2nd ed.). Syd., Grazcos Co-operative, 1958. 35s.
- COPPLESON, V. M. Shark attack. Syd., Angus and Robertson, 1958. 32s. 6d.
- EDWARDS, R. G. The Australian garden book: with practical hints on the culture of all the principal flowers, bulbs, shrubs, trees, fruits and vegetables. Syd., Angus and Robertson, 1958. 50s.
- EMERY, F. E. Information, decision and action: a study of the psychological determinants of changes in farming techniques: by F. E. Emery and O. A. Oeser, with the assistance of Joan Tully. Melb., Melbourne Univ. Press, 1958. 21s. (Based on a survey by the Department of Psychology University of Melbourne in the East Gippsland region of Victoria.)
- HEMPHILL, ROSEMARY. Fragrance and flavour: the growing and use of herbs. Syd., Angus and Robertson, 1959. 16s.
- HUTCHINSON, R. C. Food for better performance. Melb., Melbourne Univ. Press, 1958. 13s. 6d.
- Food for survival after a disaster. Melb., Melbourne Univ. Press, 1959. 13s. 6d.
- IRWIN, W. W. Gambols in gastronomy: being some frivolous but helpful essays for girls having a man to feed. Syd., Angus and Robertson, 1959. 25s.
- KEAST, A., ed. Biography and ecology in Australia: (ed. by A. Keast, R. L. Crocker and C. S. Christian). Den Haag, Junk, 1959. £8.
- MAYES, B. T. A text book of obstetrics: (2nd ed.). Syd., A'sian Pub. Co., 1959. 137s. 6d.
- MODELSKI, G. A. Atomic energy in the communist bloc. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1959. 35s. (Australian National University Social science monograph, no. 15.)
- SPECHT, R. L., ed. Records of the American-Australian scientific expedition to Arnhem Land: v. 3, Botany and plant ecology: (ed. by R. L. Specht and C. P. Mountford). Melb., Melbourne Univ. Press, 1958. 126s.
- TITTERTON, E. W. Facing the atomic future: foreword by Professor M. L. Oliphant. Melb., Cheshire, 1956. 32s. 6d.
- TORY, B. E. Photo-lithography. Syd., Horwitz, 1959. 84s.
- VICTORIA—Health, Department of—Maternal and Child Hygiene Branch. A guide to the care of the young child: (by) Vera Scantlebury Brown (and) Kate Campbell: 4th ed. Melb., 1958. 17s. 6d.

Natural History.

STANDARD WORKS IN PRINT.

- AUSTRALIA—Commonwealth Forestry and Timber Bureau. Forest trees of Australia. Canb., 1957. 42s.
- AUSTRALIAN MUSEUM MAGAZINE. Syd., 1921 to date. Quarterly. 9s. per annum.
- BARRETT, C. L. Butterflies of Australia and New Guinea: by C. L. Barrett and A. N. Burns. Melb., Seward, 1952. 55s.
- Wild life of Australia and New Guinea. Lond., Heinemann, 1954. 18s. 6d.
- CAYLEY, N. W. What bird is that? a guide to the birds of Australia. (2nd ed.). Syd., Angus and Robertson, 1958. 45s.
- DAKIN, W. J. Australian seashores: a guide for the beach-lover, the naturalist, the shore fisherman, and the student: by William J. Dakin, assisted by Isobel Bennett and Elizabeth Pope. Syd., Angus & Robertson, 1952. 45s.
- HARRIS, THISTLE Y. Wild flowers of Australia (4th ed.). Syd., Angus & Robertson, 1956. 42s.
- KINGHORN, J. R. The snakes of Australia: (new ed.). Syd., Angus & Robertson, 1956. 25s.
- LEACH, J. A. Australian nature studies: a book of reference for those interested in nature study (3rd ed.: rev. by E. Byrne). Melb., Macmillan, 1952. 30s.
- NICHOLLS, W. H. Orchids of Australia: drawn in natural colour by W. H. Nicholls with descriptive text: (introd. by C. T. White). Melb., Georgian House, 1951. 3 pts. 150s. each.
- ROUGHLEY, T. C. Wonders of the Great Barrier Reef: (2nd ed.). Syd., Angus & Robertson, 1951. 30s.
- TROUGHTON, E. Le G. Furred-animals of Australia (3rd ed.). Syd., Angus & Robertson, 1951. 35s.

RECENT PUBLICATIONS OF INTEREST.

- ALLAN, C. M. JOYCE. Australian shells. Melb., Georgian House, 1959. 84s.
- BELL, A. Some common Australian birds: by Allan and Shirley Bell. Melb., Oxford Univ. Press 1956. 35s.
- BROOKS, A. E. Australian native plants for home gardens. Melb., Lothian, 1959. 45s.
- GILLET, K. The Great Barrier Reef and adjacent isles: a comprehensive survey for visitor, naturalist and photographer: by Keith Gillett and Frank McNeill. Syd., Coral Press, 1959. 70s.
- GOADBY, P. Sharks and other predatory fish of Australia. Brisb., Jacaranda Press, 1959. 12s. 6d.
- HARRIS, THISTLE Y., ed. Naturecraft in Australia: an introductory handbook to the fauna and flora and to the Australian environment for the use of the bushwalker, student, teacher, field naturalist and conservationist. Syd., Angus & Robertson, 1956. 25s.
- HYETT, J. A bushman's year. Melb., Cheshire, 1959. 30s.
- KEAST, J. A. Window to bushland. Syd., Educational Press, 1959. 16s.
- LEACH, J. A. An Australian bird book: a complete guide to the birds of Australia: rev. and rewritten by Philip Crosbie Morrison: (9th ed.). Melb., Whitcombe & Tombs, 1958. 32s. 6d.
- MCAURTHUR, KATHLEEN. Queensland wild flowers: a selection. Brisb., Jacaranda Press, 1959. 22s. 6d.
- MCPHEE, D. R. Some common snakes and lizards of Australia. Brisb., Jacaranda Press, 1959. 12s. 6d.

Natural History—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- PARROTT, A. W. Sea anglers' fishes of Australia. Melb., Hodder and Stoughton, 1959. 25s.
 WHITLEY, G. P. The sea-horse and its relatives: by Gilbert Whitley and Joyce Allan. Melb., Georgian House, 1958. 30s.
 WORRELL, E. Dangerous snakes of Australia, a handbook for bushmen, bush-walkers, mission workers, servicemen, boy scouts, New Australians, and naturalists on the identification and venoms of Australian snakes with directions for first aid treatment of snake-bite. Syd., Angus & Robertson, 1956. 12s. 6d.

Aboriginals.

STANDARD WORKS IN PRINT:

- AUSTRALIA—Territories, Department of. Our aborigines: prepared under the authority of the Minister for Territories, with the co-operation of the Ministers responsible for aboriginal welfare in the Australian States. Canb., Govt. Pr., 1957.
 ————Progress towards assimilation: aboriginal welfare in the Northern Territory. Canb., 1958.
 BERNDT, R. M. From black to white in South Australia: by Ronald and Catherine Berndt. Melb., Cheshire, 1951. 37s. 6d.
 ELKIN, A. P. The Australian aborigines: how to understand them (3rd ed.). Syd., Angus and Robertson, 1954. 30s.
 HASLUCK, Hon. P. M. C. Native welfare in Australia: speeches and addresses. Perth, Paterson Brokensha, 1953. 5s.
 MCCARTHY, F. D. Australia's aborigines: their life and culture. Melb., Colorgravure, 1957. 170s.
 MOUNTFORD, C. P. Records of the American-Australian scientific expedition to Arnhem Land: v. 1, Art, myth and symbolism. Melb., Melbourne Univ. Press, 1956. 126s.
 OCEANIA: a journal devoted to the study of the native peoples of Australia, New Guinea and the islands of the Pacific Ocean. Syd., University of Sydney, 1930 to date. Quarterly. 40s. per annum.
 PARKER, K. L. Australian legendary tales: collected by K. Langloh Parker: selected and edited by H. Drake-Brockman: illus. by Elizabeth Durack. Syd., Angus & Robertson, 1953. 25s.
 WARNER, W. L. A black civilization: a social study of an Australian tribe: (rev., 2nd, ed.). N.Y., Harper, 1958. \$6.50. Based on field research among the Murngin tribe, Arnhem Land, 1926–1929.

RECENT PUBLICATIONS OF INTEREST:

- AUSTRALIA—Territories, Department of. Fringe dwellers. Canb., Govt. Pr., 1959. gratis.
 CHASELING, W. S. Yulengor: nomads of Arnhem Land. Lond., Epworth Press, 1957. 21s.
 ELKIN, A. P. Aborigines and citizenship. Syd., Association for the Protection of Native Races, 1959. 1s.
 HARNEY, W. E. Life among the aborigines. Lond., Hale, 1957. 18s. (The author, a well known identity in the Northern Territory for many years, is now caretaker of Ayers Rock, Central Australia.)
 MCCARTHY, F. D. Australian aboriginal rock art: foreword by A. P. Elkin. Syd., Australian Museum 1958. 5s.
 MCCONNELL, URSULA H. Myths of the Munkan. Melb., Melbourne Univ. Press, 1957. 35s.
 ROBINSON, R. The feathered serpent: the mythological genesis and recreative ritual of the aboriginal tribes of the Northern Territory. Syd., Edwards & Shaw, 1956. 30s.
 TENNANT, KYLIE. Speak you so gently. Lond., Gollancz, 1959. 23s. 6d. (An account of the aboriginal co-operative community at the Lockhart River Mission.)
 WELLS, ANNIE E. Tales from Arnhem Land: illus. by Margaret Paice. Syd., Angus and Robertson, 1959. 16s. (Legends of the Australian aborigines.)

Art, Architecture, Music and Theatre.

STANDARD WORKS IN PRINT.

- ANDERSON, H. Australian song index, 1828–1956. Ferntree Gully, Vic., Rams Skull Press, 1957. 18s.
 BADHAM, H. E. A gallery of Australian art: chosen and introd. by Herbert Badham. Syd., Currawong 1954. 73s. 6d.
 BARNETT, P. N. Australian book-plates and book-plates of interest to Australia. Syd., Beacon Press, 1950. 252s.
 BOYD, R. Australia's home: its origins, builders and occupiers. Melb., Melbourne Univ. Press, 1952. 25s.
 CASEY, MAIE, comp. Early Melbourne architecture: 1840–1888: (comp. and ed. by Maie Casey and others). Melb., Oxford Univ. Press, 1953. 40s.
 CATO, J. The story of the camera in Australia. Melb., Georgian House, 1955. 126s.
 GODDARD, R. H. Australian landscapes in miniature. Syd., Legend Press, 1952. 12s. 6d.
 HALL, H. B. Ballet in Australia from Pavlova to Rambert. Melb., Georgian House, 1948. 105s.
 HERMAN, M. E. The early Australian architects and their work: illus. and decorated by the author. Syd., Angus and Robertson, 1954. 84s.
 HOFFE, URSULA. Masterpieces of the National Gallery of Victoria. Melb., Cheshire, 1949. 70s.
 MCGUIRE, D. P. The Australian theatre . . . by P. McGuire, B. Arnott and F. M. McGuire. Melb., Oxford Univ. Press, 1948. 12s. 6d.
 ORCHARD, W. A. Music in Australia: more than 150 years of development. Melb., Georgian House, 1952. 30s.

Art, Architecture, Music and Theatre—*continued.*

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIAN THEATRE YEAR BOOK: (ed. by the Australian Elizabethan Theatre Trust.). Melb., Cheshire, 1958 to date. 20s.
- BATTARBEE, R. E. Modern Australian aboriginal art (2nd ed.). Syd., Angus and Robertson, 1958. 30s.
- DARGIE, W. A. On painting a portrait. Lond., Artist Publishing Co., 1957. 15s. (Artist's series.)
- FEINT, A. Flower paintings. Syd., Ure Smith, 1948. 75s.
- GELL, HEATHER. Music, movement and the young child (2nd ed.). Syd., A'sian Pub. Co., 1959. 30s.
- HERMAN, M. E. The architecture of Victorian Sydney: by Morton Herman assisted by Boyd Atkinson. Syd., Angus and Robertson, 1956. 84s.
- HEYSEN, H. Watercolours and drawings: text by Sir Lionel Lindsay and James S. MacDonald. Syd., Legend Press, 1952. 105s.
- MACDONALD, J. S. Australian painting desiderata: foreword by Robert Menzies. Melb., Lothian Co., 1958. 25s.
- MACQUEEN, K. Adventure in watercolour. Syd., Legend Press, 1948. 63s.
- MISSINGHAM, H. Hal Missingham sketch book. Syd., Dymock's, 1954. 126s.
- MOLNAR, G. Insubstantial pageant: (cartoons from the Sydney Morning Herald). Syd., Angus and Robertson, 1959. 22s. 6d.
- OLYMPIC GAMES, 16th, Melbourne Nov.-Dec., 1956—*Organizing Committee*. The arts festival of the Olympic Games, Melbourne: a guide to the exhibitions with introductory commentaries on the arts in Australia. Melb., Olympic Civic Committee of the Melbourne City Council, 1956. 21s.
- PRESTON, MARGARET. Margaret Preston's monotypes. Syd., Ure Smith, 1949. 75s.
- ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS—*Queensland Chapter—Publications Committee*. Buildings of Queensland . . . a record of architecture in Queensland . . . (ed. by E. J. A. Weller and others.). Brisb., Jacaranda Press, 1959. 18s. 6d.
- SEIDLER, H. Houses, interiors and projects. Syd., Associated General Publications, 1959. 84s.
- SMITH, B. W., ed. Education through art in Australia. Melb., Melbourne Univ. Press, 1958. 25s.
- ZEIGLER, O. L., ed. Australian photography, 1957. Syd., Oswald Zeigler Publications, 1957. 30s.

Sport.

STANDARD WORKS IN PRINT.

- COOMBE, D. C. History of the Davis Cup: being the story of the International Lawn Tennis Championship, 1900-48. Syd., A'sian Pub. Co., 1949. 17s. 6d.
- EDWARDS, S. H. Shooting and shooting bushcraft. (2nd ed.). Syd., Angus & Robertson, 1959. 15s.
- MACLAREN, T. M. The Australian golfer's handbook, 1957. Syd., Langside Pub. Co., 1957. 20s.
- MILLER'S SPORTING ANNUAL AND ATHLETIC RECORD. Melb., Herald & Weekly Times, 1918 to date. Annual. 5s. per issue.
- MISSINGHAM, H. Good fishing: a handy guide for Australia, with illustrations of the most commonly caught fish. Syd., Dymock's, 1953. 10s. 6d.
- OLYMPIC GAMES, 16th Melbourne, Nov.-Dec. 1956—*Organizing Committee*. The official report . . . for the Games of the XVI. Olympiad, Melbourne 1956. Melb., 1958.
- WINNER, K., comp. The story of Australian motoring. Melb., Motor Manual Publications, 1955.
- Wild game of Australia. Melb., Motor Manual Publications, 1953. 27s.

RECENT PUBLICATIONS OF INTEREST.

- BLOOMFIELD, J. Know-how in the surf. Syd., Angus and Robertson, 1959. 25s.
- BRADMAN, SIR DONALD G. The art of cricket. Lond., Hodder, 1958. 30s.
- BULL, J. The spiked shoe. Melb., National Press, 1959. 18s. 6d. (A history of professional running in Australia, with special reference to Victorian performances.)
- EDRICH, W. J. Round the wicket. Lond., Muller (1959). 16s.
- FINGLETON, J. H. Four chukkas to Australia: the 1958-59 M.C.C. tour of Australia. Lond., Heinemann, 1959. 20s. Masters of cricket from Trumper to May: foreword by R. G. Menzies. Lond. Heinemann, 1958. 15s.
- HUNGERFORD, R. B. The shooters' omnibus. Syd., Afco, 1959. 20s.
- KILBURN, J. M. Cricket decade: England v. Australia, 1946-1956. Lond., Heinemann, 1959. 15s.
- MARTIN, D. Australia astride. Syd., Angus and Robertson, 1959. 25s. (A comprehensive work on all characteristics and standards of Australian horsemanship.)
- MOYES, A. G. Australian cricket: a history: by A. G. ("Johnnie") Moyes. Syd., Angus and Robertson, 1959. 50s.
- Benaud & Co.: the story of the tests, 1958-59: by A. G. ("Johnnie") Moyes. Syd., Angus and Robertson, 1959. 22s. 6d.
- PATTERSON, G. H. Chasing rainbows: happy days along the trout streams. Syd., Murray Pub. Co., 1959. 18s. 6d.
- PEEBLES, I. The fight for the ashes, 1958-1959: the English tour in Australia and New Zealand. Syd., Angus and Robertson, 1959. 21s.
- POLASEK, O. Skiing: by Ollie Polasek. Melb., Lothian, 1959. 37s. 6d.
- WAKLEY, B. J. Bradman the great. Lond., Kaye, 1959. 63s.
- WELLINGS, E. M. The ashes thrown away. Syd., Dymock's, 1959. 16s.

Literature and Language.

*CRITICISM, BIBLIOGRAPHY AND ANTHOLOGIES.

STANDARD WORKS IN PRINT.

- AUSTRALIAN BROADCASTING COMMISSION—*Standing Committee on Spoken English*. A guide to the pronunciation of Australian place names. Syd., Angus and Robertson, 1957. 30s.
- AUSTRALIAN LETTERS. Adel., Mary Martin Bookshop, 1957 to date. Quarterly. 7s. 6d. per issue.
- AUSTRALIAN POETRY. Syd., Angus & Robertson, 1941 to date. Annual. Various prices.

* Excludes the works of individual authors, reference to which will be found in Miller, *Australian literature* and Serle, *An Australasian anthology*.

Literature and Language—continued.

*CRITICISM, BIBLIOGRAPHY AND ANTHOLOGIES—continued.

STANDARD WORKS IN PRINT—continued.

- COAST TO COAST: Australian stories. Syd., Angus & Robertson, 1943 to date. Annual. Various prices.
- CROWLEY, F. K. The records of Western Australia. Perth, Publications Committee of the University of Western Australia, 1953 to date. 84s. per v.
- FERGUSON, J. A. Bibliography of Australia: v. 1-4: 1784-1850. Syd., Angus & Robertson, 1941 to date. v. 1-2 o.p., v. 3, 126s., v. 4, 210s. v. 5 and 6, 1851-1900 in preparation.
- GREEN, H. M., ed. Modern Australian poetry (2nd ed.). Melb., Melbourne Univ. Press, 1952. 17s. 6d.
- JINDYWOROBAK ANTHOLOGY. Melb., Georgian House for Jindyworobak Club, 1944 to date. Annual. Various prices.
- MACKANESS, G., comp. An anthology of Australian verse (2nd ed.). Syd., Angus & Robertson, 1952. 25s.
- MEANJIN: contemporary verse and prose. Melb., Melbourne Univ. Press, 1940 to date. Quarterly. 10s. 6d. per issue.
- MILLER, E. MORRIS. Australian literature: a bibliography to 1938; by E. Morris Miller: extended to 1950: (ed. with historical outline and descriptive commentaries by F. T. Macartney.). Syd., Angus & Robertson, 1956. 84s.
- MITCHELL, A. G. The pronunciation of English in Australia. Syd., Angus & Robertson, 1951. 12s. 6d.
- MURDOCH, W. L. F. A book of Australian and New Zealand verse (4th ed.). chosen by Walter Murdoch and Alan Mulgan. Melb., Oxford Univ. Press, 1956. 14s.
- OVERLAND, Melb., S. Murray-Smith, 1954 to date. Quarterly. 2s. 6d. per issue.
- QUADRANT. Syd., Australian Assn. for Cultural Freedom, 1956 to date. Quarterly. 5s. per issue.
- QUEENSLAND PUBLIC LIBRARY—Oxley Memorial Library. Bibliography of Queensland verse with biographical notes: by J. H. Hornibrook. Brisb., 1953. 15s.
- RODERICK, C. An introduction to Australian fiction. Syd., Angus and Robertson, 1950. 12s. 6d.
- SERLE, P., comp. An Australasian anthology: comp. by P. Serle, F. L. T. Wilmot and R. H. Croll (new ed.). Syd., Collins, 1946. 8s. 6d.
- SOUTHERLY. Syd., Australian English Association, 1939 to date. Quarterly. 5s. per issue.
- STEWART, D. A., ed. Australian bush ballads: ed. by Douglas Stewart and Nancy Keesing. Syd., Angus and Robertson, 1955. 30s.
- Old bush songs and rhymes of colonial times; enlarged and revised from the collection of A. B. Paterson: by Douglas Stewart and Nancy Keesing. Syd., Angus and Robertson, 1957. 25s.
- VERSE IN AUSTRALIA. Adel., Australian Letters, 1958 to date. Annually. 15s.
- WESTERLY. Nedlands, W.A., Arts Union, University of W.A., 1956 to date. Three issues a year. 6s. per issue.

RECENT PUBLICATIONS OF INTEREST.

- BAKER, S. J. The drum: Australian character and slang. Syd., Currawong, 1959. 17s.
- BUCKLEY, V. Poetry and morality: studies on the criticism of Matthew Arnold, T. S. Eliot and F. R. Leavis. Lond., Chatto, 1959. 21s.
- DAVIES, W. G. Mallarme et le drame solaire: essai d'exégèse raisonnée. . . . Paris, Corti, 1959.
- EWERS, J. K. Creative writing in Australia: a selective survey: (3rd ed.). Melb., Georgian House, 1959. 10s. 6d.
- HADGRAFT, C. H. Queensland and its writers: (100 years: 100 authors). Brisb., Univ. of Queensland Press, 1959. 16s. 6d.
- LAWSON, H. H. The selected works of Henry Lawson: ed. and introd. by Lyle Blair. East Lansing, Mich., Michigan State Univ. Press, 1957. \$5.00.
- MACARTNEY, F. T. Australian literary essays. Syd., Angus and Robertson, 1957. 21s.
- OSMAN, N. Modern English: a self-tutor or class text for foreign students. Syd., Angus and Robertson, 1959. 20s.
- QUINN, K. F. The Catullian revolution. Melb., Melbourne Univ. Press, 1959. 27s. 6d.
- ROBINSON, JUDITH. Alain: lecteur de Balzac et de Stendhal. Paris, Corti, 1958.
- SANSOM, C., ed. The world of poetry: poets and critics on the art and functions. Lond., Phoenix House, 1959. 25s.
- TENNANT, KYLIE. The development of the Australian novel. . . . lecture, Canberra, Thursday, 15th May, 1958. Canb., Canberra University College, 1958. (Commonwealth Literary Fund lecture, 1958).
- THOMPSON, J., jr. ed. The Penguin book of Australian verse: selected and ed. by John Thompson Kenneth Slessor and R. G. Howarth. Harmondsworth, Eng., Penguin Books, 1958. 3s.
- WIGMORE, L. G., ed. Span: an adventure in Asian and Australian writing: ed. for the Canbea Fellowship of Australian Writers. Melb., Cheshire, 1958. 25s.
- WRIGHT, JUDITH A., comp. New land, new language: an anthology of Australian verse. Melb., Oxford Univ. Press, 1957. 12s. 6d.

Fiction.

INCLUDES BOTH RECENT PUBLICATIONS AND REPRINTS OF WELL-KNOWN AUSTRALIAN WORKS.

- BARRETT, M. Stranger in Galah. Lond., Longmans, 1958. 17s.
- BROWNE, T. A. Robbery under arms: a story of life in the bush and in the goldfields of Australia. Lond., Macmillan, 1958. 6s. (First published in 1888).
- CANTWELL, J. Never a closing door. Lond., Putman, 1958. 13s. 6d.
- CATO, NANCY F. All the rivers run. Lond., Heinemann, 1958. 16s.

* Excludes the works of individual authors, reference to which will be found in Miller, *Australian literature* and Serle, *An Australasian anthology*.

Fiction—continued.

INCLUDES BOTH RECENT PUBLICATIONS AND REPRINTS OF WELL-KNOWN AUSTRALIAN WORKS—continued.

- CLEARY, J. S. *Back of sunset*. Lond., Collins, 1959. 15s.
 ——— *Strike me lucky: a novel*. Syd., Ure Smith, 1958. 18s.
 COTTERELL, G. *Tea at Shadow Creek*. Lond., Eyre, 1958.
 DARK, ELEANOR. *Lantana Lane*. Lond., Collins, 1959. 18s. 9d. *The timeless land*. Syd., Collins, 1956. 16s.. First published in 1941. The author continued this story of early Sydney in her *Storm of time and No barrier*.
 FORREST, D. *The last blue sea*. Melb., Heinemann, 1959. 18s. 9d. (Published by arrangement with the Australasian Book Society).
 FRANKLIN, STELLA M. M. L. *All that swagger* (2nd ed.). Syd., Angus & Robertson, 1956. 25s.
 FURPHY, J. *Such is life: being certain extracts from the diary of Tom Collins*. Syd., Angus and Robertson, 1956. 25s. First published in 1903.
 GLASKIN, G. M. *A change of mind*. Lond., Barrie, 1959. 18s. 9d.
 GUNN, JEANNIE. *We of the Never-never*. Melb., Robertson and Mullens, 1954. 45s. (First published in 1908).
 HERBERT, X. *Seven emus*. Syd., Angus and Robertson, 1959. 17s. 6d.
 JAMES, B., comp. *Selected Australian stories: an anthology*. Melb., Oxford Univ. Press, 1959. 12s. 6d.
 KOCH, C. *The boys in the island*. Lond., Hamilton, 1959. 18s. 9d.
 LAMBERT, E. F. *Glory thrown in*. Lond., Muller, 1959. 15s.
 LAWSON, H. H. *Henry Lawson: fifteen stories: selected and introduced by Colin Roderick*. Syd., Angus and Robertson, 1959. 15s. *Prose works*. Syd., Angus and Robertson, 1956. 35s. First published in 1935.
 LINDSAY, N. A. W. *Redheap*. Syd., Ure Smith, 1959. 21s. (First published in 1930).
 MCGHEE, J. *The middle way*. Lond., Hale, 1959.
 MANN, L. *Andrea Caslin*. Lond., Cape, 1959. 22s. 6d.
 MARSHALL, J. V. *The children*. Lond., Joseph, 1959. 12s. 6d.
 NILAND, D. F. *The big smoke*. Lond., Angus and Robertson, 1959. 17s. 6d.
 PALMER, E. V. *The big fellow*. Syd., Angus and Robertson, 1959. 25s.
 PRICHARD, KATHARINE S. *N'goola and other stories: illus. by Noel Counihan*. Melb., Australasian Book Society, 1959. 17s. 6d.
 ——— *Working bullocks*. Syd., Angus and Robertson, 1956. 16s. (First published in 1926.)
 RICHARDSON, H. H. *The fortunes of Richard Mahony*. Melb., Heinemann, 1951. 17s. 6d. (First published in 1917).
 RONAN, T. *The pearling master*. Lond., Cassell, 1958. 16s.
 SIDNEY, NEILMA. *Saturday afternoon and other stories*. Melb., Cheshire, 1959. 22s. 6d.
 STOW, J. R. *To the island*. Lond., Macdonald, 1959. 17s.
 TURNER, G. R. *Young man of talent*. Lond., Cassell, 1959. 16s. (A novel with a background setting of the New Guinea campaign in World War II).
 VON BERTOUCHE, ANNE. *February dark*. Lond., Constable, 1959. 22s. 6d.
 WEBB, ELIZABETH C. *Into the morning*. Lond., Heinemann, 1958. 20s.
 WEST, M. L. *The devil's advocate*. N.Y., Morrow, 1959. \$3.95.
 WHITE, P. V. M. *The aunt's story: (2nd ed.)*. Lond., Eyre, 1958. 16s. (First published in 1948).
 WILSON, E. *Adams of the Bounty*. Syd., Angus and Robertson, 1958. 17s. 6d.

Poetry.

RECENT PUBLICATIONS OF INTEREST.

- BRENNAN, C. J. *The burden of Tyre: fifteen poems*. Syd., Harry F. Chaplin, 1953. 63s.
 CATO, Nancy F. *The dancing bough*. Syd., Angus and Robertson, 1957. 16s.
 CRABBE, C. W. *The music of division*. Syd., Angus and Robertson, 1959. 9s. 6d.
 DERHAM, ENID. *Poems*. Melb., Printed by Melbourne Univ. Press, 1958. *gratis*.
 DUTTON, G. P. H. *Antipodes in shoes*. Syd., Edwards & Shaw, 1958. 17s. 6d.
 FITZGERALD, R. D. *This night's orbit*. Melb., Melbourne Univ. Press, 1953. 21s.
 GILMORE, DAME MARY. *Fourteen men: verses*. Syd., Angus and Robertson, 1954. 15s.
 HIGHAM, C. *The earthbound and other poems*. Syd., Angus and Robertson, 1959. 10s. 6d.
 HOPE, A. D. *The wandering islands*. Syd., Edwards & Shaw, 1955. 15s.
 HOWARTH, R. G. *Nardoo and pituri: versicles erotic, idyllic, elegiac, tragic, comic, ironic, sardonic, satiric, barbaric, epigrammatic, moral*. Cremorne, N.S.W., Talkarra Press, 1959. 7s. 6d.
 HUDSON, W. F. F. *Pools of the Cinnibar Range: (by) Flexmore Hudson*. Melb., Robertson & Mullens, 1959. 15s.
 KENDALL, H. C. *Selected poems of Henry Kendall: with biographical and critical introd. by T. Inglis Moore*. Syd., Angus & Robertson, 1957. 17s. 6d.
 LAWSON, H. H. *Songs from Lawson: (ed. by John Merideth: illus. by Clem Millward)*. Syd., Alan Scott, 1956. 4s.
 LINDSAY, SIR LIONEL. *Discobolus and other verse*. Melb., Cheshire, 1959. 84s.
 MCCRAE, H. R. *Forests of Pan*. Brisb., Meanjin, 1944. 4s. 6d.
 McDONALD, NANCY M. *The lighthouse and other poems*. Syd., Angus and Robertson, 1959. 16s.
 MANN, L. *Elegiac and other poems*. Melb., Cheshire, 1957. 17s. 6d.
 PATERSON, A. B. *Collected verse*. Syd., Angus and Robertson, 1956. 17s. 6d.
 POETRY SOCIETY OF AUSTRALIA. *First anthology* 1956. Syd., Printed by Edwards and Shaw, 1957. 21s.
 SLESSOR, K. *Poems: (2nd ed.)* Syd., Angus and Robertson, 1957. 16s.
 SMYTH, W. H. *Poems of discovery*. Syd., Angus and Robertson, 1959. 16s.
 THOMPSON, J. *Thirty poems*. Syd., Edwards & Shaw, 1954. 10s. 6d.
 WEBSTER, C. W. *Poems*. Burradoo, N.S.W., Juniper Press, 1958.
 WRIGHT, JUDITH A. *The two fires*. Syd., Angus and Robertson, 1955. 15s.

Drama and Essays.

RECENT PUBLICATIONS OF INTEREST.

- ARMSTRONG, M. S. *Plays in one act*: Thomas: Penny Dreadful; Drought. Syd., Edwards & Shaw. 1958. 12s. 6d.
- BRABAZON, F. *Singing threshold*. Syd., Beacon Hill Press, 1958. 21s. (Seven plays, mainly in verse.)
- DOWN, H. P. *A Pedagogue's tales: stories of public school life*. Melb., (Author), 1958. 30s.
- FAIRFAX, J. F. *Laughter in the camp*: ed. by Archer Russell: illus. by Lenore O'Brien, Syd., Warwick Boyce, 1958. 16s. 6d.
- MCAULEY, J. P. *The end of modernity: essays on literature, art and culture*. Syd., Angus and Robertson, 1959. 17s. 6d.
- PHILLIPS, A. A. *The Australian tradition: studies in a colonial culture*. Melb., Cheshire, 1958. 19s. 6d.

Children's Books.

RECENT PUBLICATIONS OF INTEREST.

- ALDOUS, A. *The Tendrills in Australia*. Lond., Chatto, 1959. 6s. 6d.
- AMADIO, NADINE. *The magic shell: photographed and written by Nadine Amadio*. Syd., Ure Smith, 1958. 18s.
- AUSTRALIAN JUNIOR ENCYCLOPAEDIA: (ed. Charles Barrett, 2nd ed.). Syd., Australian Educational Foundation, 1956. 210s.
- BARNARD, MARGARET. *Wish and the magic nut* . . . illus. by Sheila Hawkins. Syd., Sands, 1956. 5s. 6d.
- BURROWS, D. *Above the snowline*. Syd., Educational Press, 1959. 17s.
- CHAUNCEY, NANCEN B. *Devil's hill: illus. by Geraldine Spence*. Lond., Oxford Univ. Press, 1958. 13s. 3d.
- CLARK, MAVIS T. *Pony from Tarella*. Melb., Heinemann, 1959. 15s.
- CLARKE, MARJORIE E. H. *Sawdust and spangles*. Syd., Angus and Robertson, 1959. 17s.
- COLLINS, C. D. *Anzac adventure: the story of Gallipoli told for young readers: by Dale Collins: illus. by Frank Norton*. Syd., Angus and Robertson, 1959. 17s. 6d.
- DALZIEL, K. *Penguin road: illus. by Frank Norton*. Syd., Angus & Robertson, 1955. 15s. (Story of the Australian National Antarctic Research Expedition at Heard Island.)
- GARDNER, R. *Australian cattle stations: by Russell Gardner and Barbara Albiston*. Melb., Oxford Univ. Press, 1959. 3s. 9d.
- GILMORE, DAME MARY. *Verse for children: drawings by Celeste Mass: hand-set ed.* Syd., Writers Press, 1955. 4s. 6d.
- GOODENOW, E. *The careless kangaroo*. N.Y., Walck 1959. \$2.75.
- GUNN, J. *Sea menace*. Lond., Constable, 1958. 12s. 6d.
- GUNN, JEANNIE. *The little black princess of the Never-never*. Melb., Robertson & Mullens, 1955. 12s. 9d.
- HEDDLE, ENID M. *The boomerang book of legendary tales: chosen, ed. and arranged by Enid Moodie Heddle: decorations by Nancy Parker*. Melb., Longman's Green, 1957. 18s. 9d.
- LAMOND, H. G. *Sheep station*. Lond., Faber, 1959. 16s.
- LEAR, MELVA G. *Dangerous holiday: five young treasure-seekers in the Abrolhos Islands*. Syd., Angus and Robertson, 1959. 16s.
- MCFADYEN, ELLA M. *The big book of pegmen tales: containing favourite stories from Pegmen tales and Pegmen go walkabout: illus. by Edwina Bell*. Syd., Angus & Robertson, 1959. 18s. 6d.
- MACINTYRE, ELISABETH. *Katherine*. Syd., Angus and Robertson, 1958. 13s. 6d.
- MCAIR, W. A. *Starland of the South*. Syd., Whitcombe and Tombs, 1959. 15s.
- MEILLON, CLAIRE M. *The new surf club: illus. by Jennifer Murray*. Syd., Angus and Robertson, 1959. 13s. 6d.
- MITCHELL, ELYNE. *The silver brumby*. Lond., Hutchison, 1958. 12s. 6d.
- MORAN, H. T., ed. *The play begins: ten short plays*. Melb., Cheshire, 1958. 8s.
- NORTON, C. F. *Australian and New Zealand ships of today*. Syd., Angus and Robertson, 1958. 22s. 6d.
- PEEL, HAZEL M. *Fury: son of the wilds*. Lond., Harrap, 1959. 8s. 6d.
- POIGNANT, A. *Piccaninny walkabout: a story of two aboriginal children*. Syd., Angus and Robertson, 1957. 16s.
- PORTEOUS, R. S. *The Tambai treasure: illus. by Wai Stockpool*. Syd., Angus and Robertson, 1958. 13s. 6d.
- POWNALL, EVE. *Exploring Australia: illus. by Noela Young*. Lond., Methuen, 1958. 10s. 6d.
- REES, L. C. *The story of Wy-lah the cockatoo*. Syd., Sands, 1959. 7s. 6d.
- SHELLEY, NOREEN. *Three cheers for Piggy Grunter*. Syd., Angus and Robertson, 1959. 13s. 6d.
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DIARY OF PRINCIPAL ECONOMIC EVENTS, 1956 to 1959.

The principal economic events for the years 1931 to 1938 were shown on pages 968 to 977 of Official Year Book No. 33, those for the years 1939 to 1944 on pages 1129 to 1141 of Official Year Book No. 36, those for the years 1945 to 1948 on pages 1235 to 1245 of Official Year Book No. 37, while those for the years 1949 to 1955 were covered by Official Year Books Nos. 39 to 42. To conserve space, some of the items originally shown for the years 1956 and 1957 have been omitted from this issue. Previous issues should be consulted for additional information for these years.

1956.

In order to arrest inflationary tendencies and the decline in international reserves, additional measures were found necessary early in 1956. Despite import restrictions, overseas balances had fallen by £55 million in the six months ended December, 1955. New taxation measures were passed to provide a brake on consumption and investment spending. Taxation increased on motor vehicles and petrol, higher customs and excise duties on beer, spirits, tobacco, cigars and cigarettes, increased company taxation and increased sales tax on less essential goods. Banks agreed to raise interest rates on fixed deposits by 1 per cent. and overdraft rate from 5 per cent. to an average of 5½ per cent. In June, new import cuts estimated at £40 million a year were imposed on motor vehicles and chassis. Overseas reserves had fallen by a further £18 million in the six months ended June, 1956. Imports fell from £863 million in 1955 to £765 million in 1956 and exports rose from £778 million to £840 million. Exports of wool were £23 million higher at £377 million and exports of wheat and flour £19 million higher at £84 million. Overseas reserves at December, 1956, stood at £425 million, £70 million higher than in June, 1956.

Production of wool in 1955-56 was 1,410 million pounds. Wheat production in 1955-56 was 195 million bushels. Preliminary estimates of the total value of production of primary industries suggested an increase of 8 or 9 per cent. in 1956-57.

Secondary production generally was at the same high level as in 1955.

Although total civil employment (excluding rural and household domestic employees) was somewhat higher in the year, the number of persons receiving unemployment benefits was over 13,000 at the end of 1956, compared with 3,245 at the end of 1955. Nominal wages were nearly 5 per cent. higher, the main increase occurring in June, when an increase of 10s. a week in the Commonwealth basic wage was granted by the Full Arbitration Court.

Although there was little change in gross private investment on fixed capital equipment during 1956, significant changes occurred in some of the components of investment. Private dwelling construction was about £10 million lower, the value of motor cars purchased was about £15 million lower, investment in commercial vehicles and other capital equipment was at much the same level and other new building and construction was about £20 million higher than in 1955.

5th January.—Rent control lifted in Tasmania.

18th January.—Federal Executive Council empowered all trading banks to operate Savings Banks on conditions broadly the same as those governing State Savings Banks. (Bank of New South Wales Savings Bank Limited and Australia and New Zealand Savings Bank Limited opened 19th January, C.B.C. Savings Bank Limited opened 16th July, 1956.)

23rd January.—General Australian waterside strike over pay rates and working conditions for waterside workers. Queensland floods destroyed tobacco crops in south-west, floodwaters created widespread havoc, heavy losses of sheep.

1st February.—Loan Council meeting in Canberra decided not to alter the £190 million programme for State public works in this financial year. It agreed also to increase the interest rate on public loans by semi-governmental authorities from 4½ to 4¾ per cent. but decided against making any change in the Commonwealth bond rate.

15th February.—Waterside workers resumed work in all Australian ports after 23 days strike (see 23rd January).

17th February.—Conciliation Commissioner reduced award wages for shearers in all States except Queensland by 5 per cent. from 5th March.

20th February.—Commonwealth Government set up Advisory Panel of experts to advise Economic Committee of Commonwealth Ministry on economic problems.

24th February.—Federal Council of Australian Workers' Union called on shearers and other pastoral workers not to work under new rates fixed by Conciliation Commissioner (*see* 17th February).

1st March.—British Atomic Energy Commission contracted to buy more than £40 million worth of uranium oxide from Mary Kathleen leases near Mt. Isa.

5th March.—Improvements to working of the arbitration system discussed at round-table conference by Ministry of Labour Advisory Council which included leading trade-unionists, employers' organizations and Government experts.

14th March.—Prime Minister, in a statement to the House of Representatives, announced a number of new economic measures proposed by the Government to achieve economic stability. These included increases in sales tax on motor vehicles, jewellery and other goods of a less essential character, increases in customs and excise duties on petrol, beer, spirits, tobacco, cigarettes and cigars and increased income tax on companies. In addition, bank overdraft rates would be permitted to rise from 5 per cent. to an average of $5\frac{1}{2}$ per cent. with a maximum of 6 per cent. and bank fixed deposit rates would be increased by 1 per cent.

21st March.—Australian Loan Council approved Commonwealth proposal that interest rate on new semi-governmental loans be raised. Three new loans issued at rates of $5\frac{1}{4}$ per cent. and $5\frac{3}{8}$ per cent.

27th March.—Announced that banks would be free to fix their own rates for individual loans within the limits announced by the Prime Minister on 14th March (*see* above).

30th March.—Agreement completed between Australia and Netherlands under which 75,000 Dutch settlers would come to Australia in next five years.

4th April.—Rural and Industries Bank of Western Australia opened savings bank department.

7th April.—Commonwealth Bank increased rates of interest payable on savings bank accounts by one-quarter per cent. Other savings banks followed suit.

19th April.—Bill introduced in Commonwealth Parliament to set up Export Payments Insurance Corporation. (Act assented to 19th June.)

27th April.—New agreement finalized by United Nations Wheat Conference; to come into force on 1st August, for a period of three years.

25th May.—Full Arbitration Court announced 10s. increase in Commonwealth Basic Wage and restated decision not to make automatic quarterly adjustments.

29th May.—Bill introduced in Commonwealth Parliament to replace Stevedoring Industry Board by Australian Stevedoring Industry Authority. (Act assented to 30th June.)

Announced that, as part of Commonwealth Government's world-wide trade promotion drive, Australian trade missions would visit New Zealand, India, Ceylon, Japan, Pakistan, the Middle East and, possibly, the Philippines to try to boost Australian exports.

19th June.—Announcement made of successful conclusion of negotiations for an Australian loan of \$25 million to be raised in New York.

21st June.—Executive of Australian Council of Trades Unions, at special congress in Melbourne, empowered to take nation-wide strike action against Stevedoring Industry Act (*see* 29th May).

24th June.—Biggest floods for 70 years on Darling and Murrumbidgee Rivers covered vast areas of country in south-west New South Wales and also affected northern Victoria.

26th–28th June.—At Loan Council Meeting, Commonwealth rejected proposals by the States for a substantially increased loan programme to finance State works during 1956–57. With Commonwealth dissenting, Loan Council approved a governmental borrowing programme of £210,000,000 for 1956–57. (*See* p. 1134 of Official Year Book No. 44 for details.)

28th June.—At Premiers Conference, Acting Prime Minister and Treasurer announced that the Commonwealth Government would make a supplementary grant to the States of £19,400,000. This would bring the total of tax reimbursement grant and supplementary grant to £173,000,000 or £16,000,000 more than similar grants in 1955–56.

Acting Prime Minister announced new £40 million a year import cuts to reduce imports of fully assembled motor vehicles by 50 per cent. and unassembled chassis by 30 per cent. Dollar licences for import of motor vehicles from North America reduced by 30 per cent.

10th July.—By decision of Privy Council, New South Wales Government held liable for repayment of £1 million to interstate road hauliers in respect of licence fees and mileage charges paid since July, 1952.

13th July.—Tasmanian wages boards decided to suspend quarterly adjustments of State Basic Wage after 16s. adjustment made for June quarter.

1st August.—New International Wheat Agreement commenced to operate. Australian quota 30 million bushels out of total of 303 million bushels (*see* Chapter XXII., p. 901).

14th August.—New Conciliation and Arbitration Act became effective. (*See* Chapter XII., page 416.)

16th August.—Special Premiers' Conference. Commonwealth asked States to freeze basic wage but failed to reach agreement.

22nd August.—Large deposit of bauxite discovered on west coast of Cape York Peninsula.

29th August.—1956–57 Budget introduced into the New South Wales Legislative Assembly. (For details *see* p. 1134 of Official Year Book No. 44.)

30th August.—Commonwealth Budget for 1956–57 introduced into the House of Representatives. (For details, *see* p. 1134 of Official Year Book No. 44.)

11th September.—1956–57 Budget introduced into the Victorian Legislative Assembly. (For details, *see* p. 1135 of Official Year Book No. 44.)

18th September.—1956–57 Budget introduced into the South Australian Legislative Assembly. (For details, *see* p. 1135 of Official Year Book No. 44.)

20th September.—1956–57 Budget introduced into the Queensland Legislative Assembly. (For details, *see* p. 1135 of Official Year Book No. 44.)

28th September.—All price controls suspended in New South Wales.

4th October.—Minister for Trade stated that United Kingdom asked Government for its reactions to suggestion that United Kingdom should join in partial free trade area in Western Europe.

10th October.—Victorian Legislative Assembly passed legislation to abolish cost of living adjustments for employees under State awards.

11th October.—Prime Minister announced signing of new five-year Sugar Agreement between Commonwealth and Queensland governments.

12th October.—Queensland State Industrial Court granted an interim shearing award for payment of £7 11s. per 100 sheep shorn. This was accepted by shearers and 10 months old industrial dispute ended.

26th October.—Eight metal trades unions, backed by A.C.T.U., applied to newly formed Commonwealth Industrial Commission for basic wage increases and restoration of quarterly cost-of-living adjustments.

31st October.—1956–57 Budget introduced into the Tasmanian House of Assembly. (For details, *see* p. 1135 of Official Year Book No. 44.)

8th November.—1956–57 Budget introduced into the Western Australian Legislative Assembly. (For details, *see* p. 1136 of Official Year Book No. 44.)

12th November.—Australia and United Kingdom agreed on comprehensive trade pact to replace 24-year-old Ottawa Agreement.

22nd November.—Commonwealth Treasurer announced that Minister for External Affairs had signed loan agreements on behalf of Commonwealth for a total of \$27 million (£A12.1 million).

29th November.—First gas from brown-coal gasification plant at Morwell (Victoria) reached Melbourne through 103 mile high-pressure pipeline.

4th December.—World Bank announced \$50 million loan to Australia for development of agriculture, transport, industry and mining.

1957.

Throughout 1957, exports of merchandise continued at a high level, and for 1956-57 reached a total of £973 million. During the second half of 1957, there was a tendency for the level to fall off in comparison with 1956. Imports during the early months of the year continued at the low level established following the restrictions imposed in 1956; but, in the later months of the year, rose considerably following an easing of restrictions in the second quarter. Australia's international reserves rose by £142 million to £567 million during the first six months of the year and by a further £23 million to £590 million during the remainder of the year. Internal trade was at a higher level than in 1956.

Drought conditions in the Eastern States during 1957 considerably reduced the production of many primary products, the total gross value of primary production in 1957-58 being about 10 per cent. below the 1956-57 level.

During the year, secondary industries continued to expand. Employment in factories rose during the year and there were increases in output of most commodities for which information is available.

Employment in the building and construction, mining and quarrying, and transport industries fell during the year by 13,000, 3,700 and 2,600 respectively. These falls, however, were offset to some extent by increases in employment in factories and in the commercial and professional fields. Overall there was a small increase of 9,000 in the number of civil employees (excluding rural and household domestic employees).

Average nominal wage rates for adult males rose approximately 2 per cent. The main increase occurred in the second quarter following an increase of 10s. a week in the Commonwealth basic wage. Average earnings for employees (male units) rose by about 3 per cent. over the year.

1st February.—Shipping freights to the United Kingdom and European countries rose by 14 per cent.

7th February.—Consolidated Zinc Corporation Ltd. announced £8 million construction programme for a zinc smelter and production of sulphuric acid and superphosphate at Cockle Creek (New South Wales).

1st March.—Commonwealth Savings Bank increased its maximum housing loan from £1,750 to £2,500.

2nd April.—Details of easing of import restrictions released. The ceiling for imports in 1957-58 was raised to £775 million but the modified restrictions operated from 1st April, the start of the quota year.

29th April.—Commonwealth Conciliation and Arbitration Commission announced 10s. increase in Commonwealth Basic Wage to operate from 15th May.

New South Wales Government declared eight districts of the State drought areas.

23rd May.—Duties reduced on over 800 items imported from foreign countries.

24th May.—Australian Loan Council approved a government borrowing programme of £200 million for financial year 1957-58. This included £166,840,000 for State Works and £33,160,000 for housing under agreement between the Commonwealth and States. In addition, borrowing programmes of £89,000,000 were approved for semi-governmental and local authorities.

30th May.—Commonwealth Government passed legislation imposing a levy on wheat-growers to finance more wheat research.

4th June.—Consolidated Zinc Corporation announced a major undertaking in the development of Weipa Bauxite on Cape York peninsula.

22nd June.—Acting Prime Minister officially closed Adaminaby Dam outlet gates and water started filling the Adaminaby Reservoir.

26th June.—Commonwealth Government decided to grant United States additional air traffic rights from Australia to Antarctica, South Africa, and South-east Asia for reciprocal rights across the United States for Australian airlines flying to Europe.

2nd July.—High Court ruled that interstate vehicles could not be compelled to register in New South Wales.

6th July.—Agreement on Commerce between Japan and Australia signed in Tokyo by Japanese Prime Minister and Minister for Foreign Affairs and Australian Minister for Trade, on "most favoured nation" basis.

5th August.—First plant in Australia to produce tinplate, built for flat products division of B.H.P. Co. Ltd. at Port Kembla, was officially opened.

15th August.—British migrants enabled to claim pensions as soon as they arrive in Australia. Previously they had waiting period of 5 years for invalid pensions and 20 years for age pensions.

23rd August.—Full High Court upheld validity of Uniform Taxation Legislation but declared invalid the section giving priority to the Commonwealth.

24th August.—Ansett Transport Industries Ltd. purchased A.N.A. as a going concern for £3.3 million.

25th August.—Of growers who exercised their rights to vote, four out of five voted in favour of the Commonwealth Government's stabilization offer for currants and sultanas.

31st August.—Full High Court upheld the validity of a Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads.

3rd September.—Commonwealth Budget for 1957–58 introduced into House of Representatives. (For details, see p. 1142 of Official Year Book No. 45.)

4th September.—1957–58 Budget introduced into South Australian House of Assembly. (For details, see p. 1143 of Official Year Book No. 45.)

5th September.—1957–58 Budget introduced into Tasmanian House of Assembly. (For details, see p. 1143 of Official Year Book No. 45.)

11th September.—1957–58 Budgets introduced into New South Wales and Victorian Legislative Assemblies. (For details, see p. 1143 of Official Year Book No. 45.)

12th September.—1957–58 Budget introduced into Western Australian Legislative Assembly. (For details, see p. 1143 of Official Year Book No. 45.)

14th September.—New South Wales Government gazetted maximum interest rates and minimum deposits applicable under hire purchase and credit sales agreements prescribed in the Hire Purchase (Amendment) Act.

26th September.—1957–58 Budget introduced into Queensland Legislative Assembly. (For details, see p. 1143 of Official Year Book No. 45.)

30th September.—Conference of British Commonwealth Finance ministers opened at Mount Tremblant, Canada.

1st October.—Australia entered into double-tax agreement with Canada similar to those existing between Australia and the United Kingdom, and Australia and the United States of America.

17th October.—Applications invited for grant of licences for commercial television stations in the Brisbane, Adelaide, Perth and Hobart areas.

24th October.—Treasurer introduced new banking legislation in House of Representatives. Bills later defeated in Senate (27th November).

4th November.—First shipment of drought-relief wheat left Western Australia for New South Wales and Queensland.

20th November.—Wheat Industry Research Council and Wheat Industry Research Committees appointed.

10th December.—Commonwealth Bank advises trading banks to increase advances.

12th December.—Bill introduced in Victoria to allow cheque facilities to depositors with State Savings Bank of Victoria.

13th December.—Minister for Trade announced that Commonwealth Government had decided to import 1½ million bushels of wheat from Canada into New South Wales.

17th December.—Commonwealth ammunition filling and assembly factory opened at St. Marys, near Sydney.

1958.

Towards the end of 1957, the Australian economy started to feel the effect of the decline in economic activity overseas. Conditions overseas throughout 1958 were such that the prices received for exports, particularly wool and metals, were considerably below those

received in 1956 and 1957. Export income was further reduced by the small quantities of wheat and other grains available for export as a result of the drought conditions in the Eastern States during 1957.

By the beginning of 1958, unemployment was at a higher level than at any time since 1953 although this was mainly restricted to areas affected by the drought and to several mining areas.

To help offset the effect of the fall in export income, the Commonwealth Bank, in April, ceased the restrictions on bank lending and advised banks that there was a need to increase advances, especially in the rural and building industries. At the same time, the bank released £20 million of the special deposits of the trading banks. Further releases later in the year resulted in a reduction in the amount of these deposits from £340,300,000 in December, 1957, to £265,100,000 in December, 1958. In addition, the Commonwealth Government took action to increase public expenditure. In February, the States were offered an additional £5 million revenue grant and the 1957-58 borrowing programmes for local authorities were increased by £3 million.

During the first six months of the year exports of merchandise were only £360 million compared with £530 million in the same period of 1957. There was, during the second half of the year, a slight improvement, and exports of merchandise for the period were £378 million compared with £453 million for the same period of 1957. Imports of merchandise in 1958 were £793 million. £41 million greater than in 1957. During the year, international reserves fell by £90 million to £500 million.

A high level of internal trade continued throughout 1958 and increases in sales of most types of commodities were recorded. Sales under hire purchase agreements were higher than in 1957 and, as a result, balances outstanding increased by £72,800,000 compared with an increase of £34,900,000 in 1957.

The small wheat harvest in 1957-58 (97,600,000 bushels) following the 1957 drought and low prices for wool and other primary products considerably reduced the value of primary production. Towards the end of the year, however, prospects improved and it was estimated that the wheat crop for 1958-59 would exceed 200 million bushels. Wool production (1,433,400,000 lb.) in 1957-58 was 131 million lb. lower than in the previous year.

During the year, large increases in production were recorded in the radio and television industries and motor vehicle industries and substantial increases in many other industries. On the other hand, there was a reduction in the output of many important items of clothing and textiles and of some foodstuffs.

The number of persons in civilian employment (excluding rural and household domestic employees) increased by 29,100 during the year. In the mining and quarrying industries, there was a fall of 3,000 but in most other industries there were substantial increases. There was a slight increase in the number of persons registered for unemployment benefit, the number registered at the end of 1958 being 27,600, compared with 26,000 at the end of 1957.

The average nominal wage rates for adult males rose by approximately 1.7 per cent. during the year. The main increase occurred in the second quarter following an increase of 5s. a week in the Commonwealth basic wage. Average weekly earnings by employees (male units) were about 3 per cent. higher in 1958 than in 1957. The interim index of retail prices was 3 per cent. higher in the December quarter of 1958 than a year earlier.

2nd January.—New Zealand imposed import restrictions resulting in temporary set back to expansion of Australia's exports to New Zealand.

14th January.—Qantas commenced first regular round the world air service via San Francisco and New York.

6th February.—Wheat Industry Research Council inaugurated to study soil fertility and problems of production and marketing of wheat.

9th February.—Commonwealth Government sold two coal mines to State Electricity Commission of New South Wales for £1,800,000.

13th February.—Commonwealth Government made special grant of £5 million to States to assist their general financial position and to counter unemployment.

30th March.—Ceiling for import licences to remain fixed at £800 million per annum with some basic raw materials (e.g. petroleum) to be exempted from licensing.

1st April.—New reciprocal Social Services agreement made with United Kingdom came into operation (*see* p. 700).

18th April.—Australia's first nuclear reactor opened at Lucas Heights, near Sydney, by Prime Minister.

22nd April.—Loan of \$25 million at 4½ per cent. was raised in New York.

12th May.—Conciliation and Arbitration Commission announced a Commonwealth Basic Wage increase of 5s.

14th May.—Commonwealth Government undertook to assist the copper industry to maintain Australian price at £330 a ton, partly by duty, partly by bounty.

5th June.—Australian Loan Council approved of a borrowing programme for the financial year 1958–59 of £210,000,000, including £35,810,000 for housing under Commonwealth–State Housing Agreement and £174,190,000 for State Works. Borrowing programmes for semi-Governmental bodies and Local Authorities amounting to £95,000,000 were also approved.

1st July.—Commonwealth Bank at request of Commonwealth Government made available £10 million credit to New Zealand at 4½ per cent.

4th July.—Netherlands Government raised loan of £1,354,000 from United States Government to help support co-operative housing project for Dutch migrants to Australia. Additional finance to be raised in Australia and Holland to total of £8 to £12 million in next ten years.

17th July.—Agreement reached between New South Wales, Victoria, South Australia and Commonwealth on Snowy Mountains and Murray Waters.

31st July.—Minister for Trade announced easing of restrictions on imports of capital equipment from dollar areas and exemption from licensing on other items.

5th August.—Commonwealth Budget for 1958–59 introduced into House of Representatives.

In 1957–58, receipts of the Consolidated Revenue Fund (excluding self balancing items) were £1,311,400,000. The expenditure (excluding self balancing items and the payment to the Loan Consolidation and Investment Reserve) amounted to £1,207,000,000. There was thus £104,400,000 available for payment to the Loan Consolidation and Investment Reserve. The main items of revenue were (1956–57 receipts shown in parentheses):—Income taxes, £650,400,000 (£620,300,000); Excise Duties, £232,600,000 (£217,400,000); Customs Duties, £71,700,000 (£68,600,000); and Sales Tax, £137,800,000 (£125,800,000). The main items of expenditure were Payments to or for the States, £270,600,000 (£244,100,000 in 1956–57); Social and Health Services, £247,500,000 (£223,900,000); Defence Services, £185,100,000 (£188,500,000); War and Repatriation Services, £127,900,000 (£125,700,000); and Capital Works and Services, £123,500,000 (£107,800,000).

The Budget for 1958–59 provided for an estimated expenditure of £1,278,100,000. In addition, it was expected that £102,000,000 would be available for payment to the Loan Consolidation and Investment Reserve.

The Budget proposals provided for an increase of 10s. a week for age, invalid and widow pensioners who pay rent, a liberalization of the means test for all pensioners and increases in the special rate of War pension, pensions for children of deceased ex-servicemen and the domestic allowance paid to War widows. The living allowances paid to holders of Commonwealth scholarships were to be increased and the Commonwealth Scholarship Scheme extended to provide post-graduate awards. Income Tax concessions included increases in the Zone allowances and the deduction for calls paid on shares in Oil Exploration Companies.

13th September.—Prime Minister opened Tumut Ponds dam on the Snowy River Scheme.

16th September.—1958–59 Budget introduced into New South Wales Legislative Assembly. During 1957–58, the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Sydney Harbour Services resulted in a surplus of £47,000. After providing for debt charges, there were deficits of £8,200,000 on the Railways and £1,400,000 on the Metropolitan and Newcastle Transport Services. The 1958–59 Budget provided for an overall surplus of £31,000. After meeting debt charges, it was estimated that there would be deficits of £6,500,000 on the Railways and £1,600,000 on the Metropolitan and Newcastle Transport Services.

17th September.—1958–59 Budget introduced into Victorian Legislative Assembly. In 1957–58, expenditure exceeded revenue by £3,200,000. The deficit on the Railways was £6,000,000 and on the State Coal Mines £300,000. There was a surplus of £3,100,000 on

General account. The Budget for 1958-59 provided for a total expenditure of £154,200,000. It was estimated that revenue would be £152,500,000 leaving a deficit of £1,700,000. It was estimated that the deficit on the Railways would be £3,600,000 after providing for debt charges. Budget proposals provided for increases in suburban rail fares, stamp duties on land transfers and hire purchase agreements, licence fees for insurance business and probate and gift duties. The general exemption limit for land tax would be raised from £1,000 to £1,250.

18th September.—1958-59 Budget introduced into South Australian House of Assembly. In 1957-58, revenue amounted to £70,600,000 and expenditure to £71,000,000 leaving a deficit of £400,000. For 1958-59, it was estimated that expenditure would be £73,400,000 and revenue £72,400,000 thus leaving a deficit of £1,000,000.

1958-59 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1957-58 resulted in a deficit of £812,000. Receipts of the Consolidated Revenue Fund totalled £20,800,000 and expenditure £21,600,000. For 1958-59 it was estimated that expenditure would be £22,800,000 and revenue £21,700,000 leaving a deficit of £1,100,000.

25th September.—1958-59 Budget introduced into Western Australian Legislative Assembly. Financial transactions for the year 1957-58 resulted in a deficit of £1,100,000. For 1958-59, it was estimated that expenditure would be £61,800,000 and revenue £59,800,000 resulting in a deficit of £2,000,000.

2nd October.—1958-59 Budget introduced into Queensland Legislative Assembly. In 1957-58 receipts of the Consolidated Revenue Fund were £88,000,000. Expenditure was £89,500,000 leaving a deficit of £1,500,000. Excluding the amount provided for reduction of the accumulated debit balance in the Consolidated Revenue Fund (£5,200,000) it was estimated that expenditure in 1958-59 would be £96,000,000. With revenue estimated at £94,200,000 there would be a deficit of £1,800,000.

8th October.—First issue of new "Special" Bonds of £10 units, with a limit of £5,000, bearing variable rates of interest and redemption bonuses according to the period held.

High Court ruled Queensland road transport levies valid.

9th October.—Victorian State Electricity Commission $5\frac{1}{2}$ per cent. loan for 7, 10, or 25 years undersubscribed by £800,000 and Queensland S.E.C. loan of $5\frac{3}{8}$ per cent. under-subscribed by £115,000.

15th October.—£Stg. 15,000,000 Loan floated in London, the first Australian loan floated in London for 19 years. At $5\frac{1}{2}$ per cent., issued at £98 Stg., this loan was over-subscribed.

1st November.—Savings Bank interest raised $\frac{1}{4}$ per cent. to 3 per cent. on balances up to £2,000.

7th November.—Work commenced on new £30,000,000 power station at Wangi, N.S.W. with a planned capacity of 60,000 kW.

10th November.—The full bench of the Industrial Commission granted marginal increases of 15-25 per cent. to steel workers.

1959.

Early in 1959, it was evident that the recession overseas in 1958 had not seriously affected the Australian economy. The prices received for wool, which had been falling during 1958, commenced to rise again. Production and building activity were still expanding. There were also indications of an improvement in the employment position.

In the course of the year there were further improvements in the prices received overseas for wool, hides, butter and metals. The price of wheat however declined. These increased prices combined with a greater wool clip and near record wheat harvest resulted in an increase of more than £150 million in exports over the previous year. Imports of merchandise also increased following relaxation of import restrictions in April and August. During the year international reserves increased by £47 million.

The 1958-59 wheat harvest of 215 million bushels was only 5 million bushels less than the record harvest in 1947-48. It was more than double that of the previous year which had been seriously affected by drought conditions.

Weather conditions throughout the year were generally favourable for agricultural and pastoral production with the notable exception of South Australia where severe drought conditions prevailed. By the end of the year, it was apparent that another big wheat crop

(nearly 200 million bushels) would be produced. Wool production which had increased by over 10 per cent. to a record of 1,591 million lb. in 1958-59 was expected to be substantially higher again in 1959-60.

The expansion of internal trade was maintained. Retail sales of motor vehicles, petrol, etc., were 11 per cent. higher than in 1958 and other commodities over 5 per cent. higher. Sales under hire purchase agreements again increased and the balances outstanding under agreements increased by £62 million compared with an increase of £72,700,000 in 1958.

The number of persons in civilian employment increased by 73,800 during the year compared with an increase of 36,400 in 1958. Increased employment was recorded in all major industries except the mining and quarrying industry where the fall of recent years was continued. The number of persons in receipt of unemployment benefit fell by 5,000 during the year.

Throughout the year industrial production continued to expand. There were significant increases in the production of iron and steel, some building materials and in the generation of electricity. The lower level of production of clothing and textiles in 1958 continued into the early months of 1959. However, during the later months of the year there was a considerable improvement in the output of the clothing industry. Building activity was rising rapidly during the year with the number and value of new houses commenced rising about 10 per cent. above 1958, and the value of other new building commenced rising about 25 per cent.

In June the Commonwealth Basic Wage was increased by 15s. a week for males and 11s. 3d. a week for females. This was followed by an increase in margins for skill (28 per cent. in most industries) in December. As a result the minimum weekly wage rate index increased by 7 per cent. during the year and average weekly earnings increased by 5 per cent. Retail prices, measured by the Consumer Price Index, rose by 2 per cent.

1st January.—New South Wales Acts, Industrial Arbitration (Female Rates) Amendment Act 1958, providing for equal pay for male and female employees performing work of same or like nature, and Annual Holidays Act 1944-1958, providing for three weeks annual holidays for all New South Wales workers under State awards, became operative.

19th January.—Australian Exchange Control Regulations eased to allow of payment for imports in convertible sterling or any major non-sterling currencies instead of dollars and sterling and other adjustments removing differences between remittances to dollar area and other non-sterling countries.

24th January.—Contracts let by Electricity Commission of New South Wales for construction of new £14,500,000 power station at Vales Point, Lake Macquarie.

29th January.—Export controls lifted on 25 items, including newsprint, copra, margarine and iron and steel products.

7th February.—Queensland Government lifted price controls on all items other than basic foods and groceries.

15th February.—Seven-man committee set up to examine the case for the introduction of decimal currency into Australia.

18th February.—Commonwealth Government maintained allocation for grants to States for works and housing (*see* 5th June, 1958) at £210,000,000 but raised Local Government ceiling for borrowing from £16,500,000 to £20,500,000.

25th February.—Australia's first government sponsored trade mission to North America left to examine and develop export markets.

4th March.—Premiers' Conference opened. Conference accepted Commonwealth plan for roads and bridges involving an expenditure of £720,000,000 over next five years, of which Commonwealth was to contribute £250,000,000.

23rd March.—Republic of China sent first trade mission to Australia led by Chairman of Bank of Taiwan.

2nd April.—Licensing restrictions on dollar imports removed from 330 items. Minister for Trade left for trade talks in Washington.

6th April.—First government sponsored New Zealand trade mission to visit Australia arrived in Sydney.

16th April.—High Court of Australia ruled that provisions of Commonwealth Re-establishment and Employment Act giving priority in employment to ex-servicemen were invalid because of lapse of time since end of 1939-45 War.

23rd April.—Royal assent given to Reserve Bank Act, Commonwealth Banks Act, Banking Act and Banking (Transitional Provisions) Act. (*See p. 759.*)

Production of lead at Mt. Isa reduced by 25 per cent. to help world lead position. Corresponding increase in copper production.

1st May.—Commonwealth government decided to increase subsidy on oil search by £1,000,000 a year for each of next three years.

4th May.—T.1 underground power station, first major station of Snowy Mountains Scheme, commenced operation with output capacity of 160,000 kW.

16th May.—Indian railways mission visited Australia as guest of Commonwealth Government to arrange for purchase of wide range of railway equipment.

20th May.—New Zealand eased import restrictions (*see* 2nd January, 1958). Market for Australian canned and dried fruits in New Zealand expected to increase by 16 per cent. as a result.

1st June.—Migration Act 1958, providing *inter alia* for abolition of Dictation Test, and adoption of entry permit system (*see* p. 324), became operative.

5th June.—Commonwealth Conciliation and Arbitration Commission, in majority decision on Basic Wage Inquiry, increased Federal basic wage by 15s. for males and 11s. 3d. for females from first pay period after 11th June. Federal awards higher than State awards for first time in 20 years.

8th June.—£10,000,000 blast furnace began production at Port Kembla with a capacity of 600,000 tons of pig iron a year, making a total of 3,000,000 tons for Australia.

9th June.—Working hours in State-owned coal mines in New South Wales reduced from 40 to 37½ a week.

24th June.—Premiers' Conference accepted Commonwealth proposal for new plan of tax reimbursements based on population and wage levels, grants to be increased from £225,750,000 to £244,500,000 for 1959–60.

Loan Council approved of borrowing programme for 1959–60 of £220,000,000 (£183,900,000 for States, £36,100,000 for Commonwealth–State Housing). Local and Semi-governmental borrowing ceiling fixed at £100,000,000.

26th June.—Expert committee on coal formed to advise Government on all aspects of uses of coal.

29th June.—Australia's quota to International Monetary Fund increased from \$200,000,000 to \$300,000,000.

30th June.—Fourteen mile, £19,000,000, Eucumbene–Tumut tunnel in Snowy Mountains Hydro-electric Scheme completed four months ahead of schedule.

2nd July.—S.S. *Delfino* left Sydney with 30,000 live sheep for export to United States of America, the first significant shipment of this kind ever made.

First 707 jet-liner arrived in Sydney for Qantas, part of major re-equipment programme on overseas services and conversion to jet-planes of major internal air-lines in Australia.

19th July.—Remaining undistributed profits of Joint Organization marketing of wool (about £2,400,000) transferred to Wool Research Fund.

1st August.—Import restrictions further eased by about £50,000,000 annually (*see also* 2nd April) and licensing discrimination removed from almost all imports from dollar areas.

11th August.—Commonwealth Budget for 1959–60 introduced into House of Representatives.

In 1958–59, receipts of the Consolidated Revenue Fund (excluding self-balancing items) were £1,287,882,000. The expenditure (excluding self balancing items and the payment to the Loan Consolidation and Investment Reserve) amounted to £1,259,935,000. There was thus £27,947,000 available for payment to the Loan Consolidation and Investment Reserve. The main items of revenue were (1957–58 receipts shown in parentheses):—Income taxes, £608,700,000 (£650,400,000); Excise Duties, £237,200,000 (£232,600,000); Customs Duties, £71,700,000 (£71,700,000); and Sales Tax, £143,600,000 (£137,800,000). The main items of expenditure were Payments to or for the States, £286,600,000 (£270,600,000); Social and Health Services, £278,200,000 (£247,500,000); Defence Services, £152,000,000, excluding £37,300,000 provided from Loan Fund, (£185,100,000); War and Repatriation Services, £128,200,000 (£127,900,000); and Capital Works and Services, £132,400,000 (£123,500,000).

The Budget for 1959-60 provided for an estimated expenditure of £1,645,300,000 of which £1,348,300,000 would be provided from the Consolidated Revenue Fund and £297,000,000 from the Loan Fund. In addition it was expected that £37,000,000 would be available for payment to the Loan Consolidation and Investment Reserve.

8th September.—1959-60 Budget introduced into Victorian Legislative Assembly. In 1958-59, expenditure exceeded revenue by £2,500,000. The deficit on the Railways was £3,900,000 and on the State Coal Mines £200,000. There was a surplus of £1,600,000 on General Account. The Budget for 1959-60 provided for a total expenditure of £165,100,000. It was estimated that revenue would be £163,900,000 leaving a deficit of £1,200,000. It was estimated that the deficit on the Railways would be £5,200,000 after providing for debt charges.

16th September.—1959-60 Budget introduced into New South Wales Legislative Assembly. During 1958-59, the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Sydney Harbour Services resulted in a surplus of £43,000. After providing for debt charges, there were deficits of £6,400,000 on the Railways and £1,800,000 on the Metropolitan and Newcastle Transport Services. The 1959-60 Budget provided for an overall surplus of £58,000. After meeting debt charges, it was estimated that there would be deficits of £6,000,000 on the Railways and £2,300,000 on the Metropolitan and Newcastle Transport Services.

22nd September.—1959-60 Budget introduced into Western Australian Legislative Assembly. Financial transactions for the year 1958-59 resulted in a deficit of £1,700,000. For 1959-60, it was estimated that expenditure would be £64,800,000 and revenue £63,300,000 resulting in a deficit of £1,500,000.

24th September.—1959-60 Budget introduced into South Australian House of Assembly. In 1958-59, revenue amounted to £72,700,000 and expenditure to £73,700,000 leaving a deficit of £1,000,000. For 1959-60, it was estimated that expenditure would be £80,300,000 and revenue £79,500,000 thus leaving a deficit of £800,000.

29th September.—1959-60 Budget introduced into Queensland Legislative Assembly. In 1958-59, receipts of the Consolidated Revenue Fund were £93,800,000. Expenditure was £95,000,000 leaving a deficit of £1,200,000. For 1959-60, it was estimated that the Budget would be approximately balanced with revenue and expenditure both amounting to £101,900,000.

1959-60 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1958-59 resulted in a deficit of £900,000. Receipts of the Consolidated Revenue Fund totalled £21,900,000 and expenditure £22,800,000. For 1959-60 it was estimated that expenditure would be £24,700,000 and revenue £24,100,000 leaving a deficit of £600,000.

15th October.—Approval of new import levels by Japanese government expected to increase Australia's wool exports substantially.

16th October.—New trade agreement with Germany provided for increases in exports of meat, grain, fruit, and wine.

30th October.—£15,000,000 special deposits (first for 2½ years) called in from Trading Banks by Commonwealth Bank; (further £20,000,000 called in 30th November, and more calls anticipated next year).

16th November.—Currency restrictions for Australians travelling abroad relaxed substantially. Limit £2,000 a year to any part of the world, an increase of 25 per cent. for Sterling areas and 150 per cent. for all other areas.

25th November.—First issue of 3 per cent. seasonal Treasury Notes, totalling £12,100,000. Further issues to be made fortnightly until March, 1960.

26th November.—Full Bench of New South Wales State Industrial Commission interpreting Industrial Arbitration (Female Rates) Amendment Act, 1958 (assented to 31st December, 1958), provided for 5 per cent. annual increase in female wages from 1st January, 1960, to 1st January, 1963.

27th November.—Commonwealth Conciliation and Arbitration Commission in judgment on Metal Trades case, granted increase of 28 per cent. in margins to fitters and other skilled metal trades employees. Followed by similar awards by other tribunals.

9th December.—Contracts let for construction of new £120,000,000 power station at Hazlewood (Vic.) planned to double amount of electricity available in Victoria.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTES.—For each earlier year this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

Year.

- 1788 N.S.W.—Arrival of "First Fleet", under Captain Arthur Phillip, at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove, and formal possession of the colony was taken on 26th January. Formal proclamation of colony and establishment of regular government on 7th February. Branch settlement established at Norfolk Island. French navigator La Perouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvested at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—Scarcity of provisions. "Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet". Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—Hunter River coal-mines worked. First customs house in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. Qld.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer and St. Vincent Gulfs by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Captain Macarthur. Issue of *The Sydney Gazette*, first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Captain Macarthur.
- 1806 N.S.W.—"The great flood" on the Hawkesbury. Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Free school established.
- 1810 N.S.W.—Post Office officially established at Sydney.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Blaxland, Lawson and Wentworth. Macquarie River discovered by Evans.

- Year.
- 1814 N.S.W.—Flinders suggested the name "Australia" instead of "New-Holland". Creation of Civil Courts.
- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
- 1816 N.S.W.—Sydney Hospital opened.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains and the Peel, Hastings and Manning Rivers discovered by Oxley, and Port Essington (N.T.) by Captain King.
- 1819 N.S.W.—First savings bank in Australia opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep from Camden Park (N.S.W.) flocks.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1822 N.S.W.—Formation of Agricultural Society of New South Wales.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Constituted a Crown colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas settlement formed at Melville Island, N.T.
- 1825 Tas.—Van Diemen's Land (Tasmania) proclaimed a separate colony. Qld.—Major Lockyer explored Brisbane River to its source and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra district. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military settlement founded at King George Sound by Major Lockyer. First official claim of British sovereignty over all Australia.
- 1828 N.S.W.—Second Constitution. First census. Sturt's expedition down Darling River. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Black line organized to force aborigines into Tasman's Peninsula but failed. Small remnant subsequently (1830 to 1835) persuaded to settle on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of at auction. Mitchell's explorations north of Liverpool Plains. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W. State Savings Bank established.
- 1833 N.S.W.—First school of arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Brothers. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against Murray River natives at Pinjarra for continued attacks on settlers.
- 1835 Vic.—John Batman arrived at Port Phillip; foundation of Melbourne.

Year.

- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland (S.A.). Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane—first free colonists. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payments for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George Sound.
- 1841 N.S.W.—Gold found near Hartley. W.A.—Completion of Eyre's overland journey from Adelaide to King George Sound. New Zealand proclaimed a separate colony.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). Qld.—Moreton Bay granted legislative representation as a distinct electoral division.
- 1844 Qld.—Leichhardt's expedition to Port Essington (N.T.). S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat-preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia.
- 1847 N.S.W.—Iron-smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Qld.—Explorations by Leichhardt, Burnett and Kennedy.
- 1848 N.S.W.—National and Denominational School Boards established. Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to gold-fields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of *Hashemy* convicts to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. Sydney University founded. Vic.—Gold discovered at Clunes. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.
- 1851 N.S.W.—Payable gold discovered by Hargreaves at Lewis Ponds and Summerhill Creek. Vic.—Port Phillip created an independent colony under the name of Victoria. Discovery of gold in various localities. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascended the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protested against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.
- 1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.
- 1854 Vic.—Opening of first Australian railway—Flinders Street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec. Telegraph first used.

- Year.
- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.
Responsible Governments in N.S.W., Vic., S.A. and Tas. (Act of 1855).
- 1857 N.S.W.—Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne and Adelaide. Qld.—Canoona gold rush.
Population of Australia reached 1,000,000.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent and named "Central Mount Stuart".
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property (Torrens) Act passed. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the north-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First sugar made from Queensland cane.
- 1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 W.A.—Arrival of *Hougomont*, last convict ship.
- 1869 Vic.—Record gold nugget "Welcome Stranger" 2,284 oz. found near Dunolly. W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of transcontinental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff.
- 1872 Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.
- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. S.A.—University of Adelaide founded. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney to Wellington. W.A.—Giles crossed colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aboriginals.
- 1877 W.A.—Opening of telegraphic communication with South Australia.
Population of Australia reached 2,000,000.
- 1878 Qld.—Restriction of Chinese immigration.
Introduction of telephone into Australia.

Year.

- 1879 N.S.W.—First artesian bore at Kallara Station, near Bourke. First steam tramway.
W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—First Australian Telephone Exchange opened in Melbourne.
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.
First Australia-wide censuses on same date taken.
- 1882 W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.
First session of Federal Council held at Hobart on 26th January.
- 1887 W.A.—Gold discovered at Southern Cross.
First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Restrictive legislation against Chinese, imposing poll-tax of £100. Qld.—Railway communication opened between Sydney and Brisbane.
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution.
Population of Australia reached 3,000,000.
- 1890 W.A.—Responsible Government granted. Tas.—University of Tasmania founded.
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.
First Federal Convention in Sydney, draft bill framed and adopted.
- 1892 W.A.—Discovery of gold at Coolgardie.
- 1893 Financial crisis, chiefly affecting the eastern States.
- 1894 S.A.—Women's suffrage granted—first State to do so.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People's Federal Convention at Bathurst. Vic.—Wages Board system established by Act of Parliament.
- 1897–8 Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
- 1898 Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed 17th September. Sir Edmund Barton formed first Federal Ministry.

Year.

- 1901 Proclamation of the Commonwealth at Sydney. First Commonwealth Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.
- 1902 Completion of Pacific Cable (all-British). First Commonwealth Tariff.
- 1903 Coolgardie and Kalgoorlie Water Supply Scheme completed. Inauguration of the Federal High Court.
- 1904 Commonwealth Conciliation and Arbitration Act.
- 1905 Population of Australia reached 4,000,000. Re-introduction of assisted immigration in New South Wales.
- 1906 Wireless telegraphy installed between Queenscliffe, Vic., and Devonport, Tas. Papua taken over by Commonwealth.
- 1907 First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne. Imperial Conference in London. Declaration of first basic wage in "Harvester Judgment".
- 1908 Canberra chosen as site of Australian Capital.
- 1909 Imperial Defence Conference in London. Visit of Lord Kitchener to report and advise on Australian military defence. Queensland University founded. Establishment of Commonwealth Age Pension Scheme.
- 1910 Penny Postage. Arrival of *Yarra* and *Parramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Commonwealth Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod of Trans-Australian Railway turned at Port Augusta. University of Western Australia founded.
- 1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.
- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Commonwealth Parliament. Transfer of Norfolk Island to Commonwealth.
European War declared 4th August. German possessions in South West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. Australian and New Zealand Army Corps (ANZAC.) formed under Sir William Birdwood.
- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W.
Australian and New Zealand troops landed at Gallipoli, 25th April, Evacuation, 18th-20th December. Australian warships with Grand Fleet.
- 1916 Purchase of steamships by the Commonwealth.
Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine and Syria. Other troops transferred to France. First proposal for compulsory military service overseas defeated by referendum.
- 1917 National Ministry formed under Rt. Hon. W. M. Hughes. Transcontinental (Kalgoorlie-Port Augusta) Railway completed.
Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service overseas defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by King George V.
Armistice with Germany, 11th November. Repatriation Commission created.
- 1919 Peace Conference. Return of Australian troops. England to Australia flight by Capt. (Sir) Ross Smith and Lieut. (Sir) Keith Smith. Peace Treaty signed at Versailles, 28th June.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Imperial Statistical Conference in London.

- Year.
- 1921 Mandate over Territory of New Guinea given to Australia. First direct wireless press message, England to Australia. Second Commonwealth Census.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 First sod turned on the site of Commonwealth Parliament House at Canberra.
- 1924 Directorate of Commonwealth Bank appointed. Australian Loan Council formed.
- 1925 Population of Australia reached 6,000,000. Solar Observatory established at Canberra.
- 1926 Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.
- 1927 Transfer of Seat of Commonwealth Government from Melbourne to Canberra. Beam wireless established. Financial agreement between Commonwealth and States.
- 1928 State Debts referendum carried.
- 1929 Commonwealth Bank empowered to mobilize gold reserve. Abolition of peacetime compulsory military training in favour of voluntary system.
- 1930 Effects of world-wide severe economic depression felt throughout Australia. Brisbane-Grafton (N.S.W.) railway, first step towards uniform gauge railway communication between capitals of mainland States, opened. First Australian—Rt. Hon. Sir Isaac Alfred Isaacs, G.C.M.G., Chief Justice of the High Court—appointed Governor-General of Australia.
- 1931 Depression continued. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes. England departed from gold standard. Commonwealth Bank assumed control of exchange rate and lowered it to 125 (previously 130).
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. Legislation passed enabling note reserve to be held in sterling securities. Imperial Economic Conference at Ottawa.
- 1933 World Economic Conference in London. Secession Referendum carried (Western Australia). Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Third Commonwealth Census.
- 1934 Inauguration of England-Australia Air Mail Service.
- 1935 Empire Statistical Conference at Ottawa.
- 1936 Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Tasmania linked with mainland by submarine telephone cable.
- 1937 Imperial Conference in London. Report of the Royal Commission on Monetary and Banking Systems in Australia.
- 1938 New Defence Programme involving expenditure of £63,000,000 over three years. New Trade Treaty with Japan.
- 1939 Population of Australia reached 7,000,000.
War declared on Germany, 3rd September. Royal Australian Navy placed at disposal of Great Britain. Advance party of Australians embarked for Middle East, 15th December.
- 1940 Exchange of Ministers between Australia and United States of America marked Australia's entry into field of direct diplomatic representation with countries other than the United Kingdom.
First Australian convoy (6th Australian Division) sailed for Middle East. Cruiser *Sydney* crippled Italian cruiser *Bartolomeo Colleoni*.
- 1941 Establishment of Commonwealth Child Endowment Scheme. United States Congress passed Lend-Lease Bill.
Arrival of units of Eighth Australian Division in Malaya. *Sydney* lost after fight with *Kormoran*. R.A.A.F. in defence of Britain, in Middle East and at Singapore. Australian forces engaged in Middle East, Greece, Crete and Syria. Japanese attack on Pearl Harbour. Australia declared war on Japan, 9th December.

Year.

- 1942 Federal uniform taxation adopted. Commonwealth widows' pensions introduced. Rationing of commodities.
Japanese landed at Rabaul. Fall of Singapore. Darwin bombed. United States armed forces arrived in Australia and headquarters of South-West Pacific Command set up by General Douglas MacArthur in Melbourne. Coral Sea Battle. Japanese midget submarines in Sydney Harbour. Owen Stanley Ranges offensive. Ninth Australian Division at El Alamein (North Africa). Kokoda recaptured.
- 1943 Price Stabilization Scheme. Mortgage Bank Department of Commonwealth Bank opened. National Works Council formed.
Australian forces combined with American forces to recapture many places in New Guinea. Commencement of long series of amphibious operations. R.A.A.F. from 1943 till end of war operated on all fronts.
- 1944 Pay-as-you-earn taxation operated from 1st July. Referendum refused Commonwealth Government increased powers in post-war period.
Australian advances in northern New Guinea. Allied invasion of France. Australians landed on New Britain; took over from Americans in Bougainville, Solomon Islands, and at Aitape, New Guinea.
- 1945 Captain Cook Dock opened. Re-establishment and Employment Act. Banking Act to regulate banking and to protect the currency and public credit. Australia ratified United Nations Charter.
Cessation of hostilities in Europe, 8th May. Cessation of hostilities against Japan, 15th August. General demobilization commenced.
- 1946 Cessation of man-power controls. Commonwealth Government accepted responsibility for supply and maintenance of BCOF in Japan. Inauguration of Commonwealth Employment Service. Joint Organization (Wool Disposal) commenced operations. Act to establish National University at Canberra. Commonwealth and State agreement on housing. Trans-Australia Airlines (Government) began operations. Constitution Alteration Referendum granted powers in respect of social services to Commonwealth.
- 1947 End of demobilization. Census of Australia—first since 1933. Australian National Antarctic Research Expedition to establish scientific research station at Heard Island. First "displaced persons" reached Australia.
- 1948 Forty-hour week effective throughout Australia. Membership of Commonwealth Parliament increased.
- 1949 Nationality and Citizenship Act operative. Broadcasting Control Board came into operation. New Guinea placed under international trusteeship and administrative union of Papua and New Guinea established. Certain Australian aborigines for first time granted franchise at Commonwealth elections. Establishment of New South Wales University of Technology. Australian Whaling Commission established. Devaluation of Australian pound against American dollar to two dollars twenty-four cents. Commencement of Snowy Mountains Hydro-electric Power Scheme. Australia's population reached 8,000,000.
- 1950 Severe flooding in New South Wales. United Nations members engage in military operations to assist South Korea. Adult franchise for Victorian Legislative Council replaced existing franchise dependent on property qualifications. Conference of Commonwealth Prime Ministers in London.
- 1951 Opening of Jubilee celebrations to mark fiftieth year of Australian federation. British Government's confirmation of transfer of Heard Island and Macdonald Islands to Australia. Double dissolution of Commonwealth Parliament. Official cessation of hostilities with Germany. Security Treaty signed in Washington by the United States of America, Australia and New Zealand for action in the event of an armed attack in the Pacific. Japanese Peace Treaty signed. Third Conference of Government Statisticians of the British Commonwealth held in Canberra. Opening of new Legislative Council of Papua and New Guinea, which included, for the first time in the history of Australian Legislature, representatives of the native peoples.

- 1952 Nuclear experiments commenced at National University, Canberra. Important high-grade uranium deposits discovered at Rum Jungle, Northern Territory. 1st Battalion, The Royal Australian Regiment, sailed for service in Korea. Severe restrictions imposed on imports from all sources and on amounts available for Australians travelling overseas. Agreement between Commonwealth and South Australian Governments and Combined Development Agency of British and American Governments, on development of uranium deposits at Radium Hill, South Australia. Representatives of New Zealand, United States of America and Australia met at Honolulu to consider Pacific defence pact (ANZUS.). Qantas Empire Airways began first direct service between Sydney and Johannesburg, South Africa. Britain's first atomic weapon detonated on Monte Bello Islands, near north-west coast of Australia. British Commonwealth Economic Conference in London.
- 1953 Premier's Conference in Canberra failed to reach agreement on return of income tax powers to States. 2nd Battalion sailed for service in Korea. Bill introduced into Northern Territory Legislative Council to give citizenship rights to Northern Territory aborigines, except those committed to State care. Atomic Energy Act 1953 established Atomic Energy Commission. Coronation of Her Majesty Queen Elizabeth the Second. Britain and Australia signed agreement for reciprocity in social services benefits. Conference of Commonwealth Prime Ministers in London. Korean armistice signed. Commonwealth Court of Conciliation and Arbitration granted employers' applications for abandonment of the system of automatic adjustment of the basic wage in accordance with retail price index numbers.
- 1954 Her Majesty the Queen, with H.R.H. the Duke of Edinburgh, made first tour of Australia by reigning sovereign. Australian National Antarctic Research Expedition established station at Mawson to conduct meteorological and other research. Inaugural meeting of Nuclear Research Foundation. Mr. and Mrs. Vladimir Petrov of the Soviet Embassy granted political asylum. Soviet Government recalled its Embassy in Australia and Australian Embassy left Moscow. Royal Commission into espionage in Australia set up. Two new uranium fields found in north-east of South Australia. Australian population census taken. At Manila Conference, Australia signed treaty pledging collective defence against aggression in South-East Asia and South-West-Pacific. 3rd Battalion withdrawn from Korea. First uranium treatment plant in Australia opened at Rum Jungle. Atomic Energy Commission authorized to construct nuclear reactor and research laboratories as part of programme of co-operation in atomic research with United Kingdom.
- 1955 Conference of British Commonwealth Prime Ministers in London. Prime Minister visited Washington to talk on defence policy and Australia's role in South-East Asia. First power generated from Snowy Mountains fed into New South Wales electricity system. Australian population reached 9,000,000. Salk polio vaccine made at Melbourne. Messrs. Brown and Fitzpatrick committed to prison for three months by Commonwealth Parliament for breach of privilege. Commonwealth Full High Court declared invalid recent legislation imposing road tax on interstate hauliers. South Australian State Government's uranium treatment plant at Port Pirie began operations. Australian task force left for Malaya. New South Wales Government reintroduced quarterly automatic basic wage adjustments. Cocos (Keeling) Islands became Territory under authority of Commonwealth.
- 1956 SEATO military advisers conference opened in Melbourne. High Court ruled that Arbitration Court had no power to impose penalties on those disobeying its orders. Australia and Netherlands completed agreement under which 75,000 Dutch settlers would come to Australia in next five years. Australia and United Kingdom agreed on new multi-million pound programme for Woomera rocket range. Sweeping changes made in Commonwealth system of conciliation and arbitration by new Conciliation and Arbitration Act (see p. 416). Bilateral agreement signed between Australia and U.S.A. for peaceful uses of atomic energy. Dispute over control of Suez Canal resulted in London conference of Canal users. Australian Prime Minister appointed as chairman of committee to place views of conference before the Egyptian President.

Year.

- Diplomatic relations between Australia and Egypt subsequently broken off. Regular television transmissions commenced in Australia. First atomic tests at Maralinga (South Australia). Australian Government agreed to provide sanctuary for up to 10,000 refugees from Hungarian political oppression. Australia and United Kingdom agreed on comprehensive trade pact to replace 24-year-old Ottawa Agreement. Olympic games held in Melbourne. Antarctic expedition sailed to establish a new station at Vestfold Hills and extend existing bases.
- .1957 Commonwealth Government representatives and chiefs of private trading banks met in Canberra to discuss changes in the banking system. (Government introduced legislation to give effect to proposals, but bills defeated in Senate. Third SEATO Council meeting held in Canberra, preceded by conference of military advisers. South-Pacific Commission Conference held in Canberra. Adaminaby Dam outlet gates closed and water started to fill reservoir. Conference of British Commonwealth Prime Ministers in London. Commonwealth Government granted United States additional air traffic rights from Australia to Antarctica, South Africa and South-East Asia for reciprocal rights across the United States for Australian airlines flying to Europe. International Geophysical Year commenced; over 250 Australian scientists participated. High Court ruled that interstate vehicles could not be compelled to register in New South Wales but upheld validity of a Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. Agreements made with State Governments of Western Australia, South Australia and New South Wales for integration of statistical services. Full High Court upheld validity of uniform taxation legislation but declared invalid section giving priority to the Commonwealth. Commonwealth established National Capital Development Commission to co-ordinate the expansion of Canberra as the centre of Commonwealth administration. Australia set up remote automatic weather station at Taylor Glacier, 60 miles west of Mawson base. Applications invited for grant of licences for commercial television stations in Brisbane, Adelaide, Perth and Hobart areas. Agreement made for standardization of gauge of Melbourne-Albury railway line. Murray Committee, appointed by Commonwealth Government to inquire into the future of Australian Universities. Japanese Prime Minister, Mr. Kishi, visited Australia. Committee, under chairmanship of Lieut.-General Sir Leslie Morshead, to review organization of Defence Departments recommended amalgamation of Supply and Defence Production Departments.
- .1958 Queensland and Victorian State statistical offices integrated with Commonwealth statistical services. Qantas commenced first regular round the world air service via San Francisco and New York. Mr. Macmillan, British Prime Minister, made a two-week visit to Australia, the first by a British Prime Minister in office, and discussed defence and economic affairs with the Australian Prime Minister and other leading politicians. Queen Elizabeth, the Queen Mother, made tour of Australia. Prime Minister of New Zealand visited Australia as guest of the Government and later returned for discussions with Prime Minister. Monash University Act provided for establishment of new university in Victoria, and authorized expenditure of up to £2 million for land and buildings. Australia co-operated with United States in maintaining research station at Wilkes, in Antarctica. Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. First radio-active isotopes produced by the station. Adaminaby Dam, in Snowy Mountains Hydro-electric Scheme, completed two years ahead of schedule and tenders accepted for work on Upper Tumut. Tumut Ponds Dam opened by Prime Minister. Agreement reached between Commonwealth and States of New South Wales, Victoria and South Australia, on Snowy Mountains and Murray Waters. Christmas Island (Indian Ocean) transferred to Australian Administration. High Court ruled Queensland road transport levies valid (c.f. N.S.W. & Vic., 1957). Conference in Canberra between Australia and Netherlands reached agreement on administrative problems of New Guinea. Prime Minister of Canada visited Australia for talks in Canberra with Federal Cabinet. New South Wales Act passed providing for equal pay for male and female workers performing similar tasks.

Year.

- 1959 Annual Holidays Act, 1944-1958, of New South Wales, provided for three weeks annual holidays for all New South Wales workers. British Commonwealth Defence conference opened in Canberra. Australia took over custody of Wilkes Antarctic station from United States of America. Indonesian Foreign Minister (Dr. Subandrio) visited Australia as official guest for talks with Cabinet. Seven man committee appointed to investigate case for introduction of decimal currency into Australia. International Antarctic Analysis Centre set up at Melbourne within Commonwealth Bureau of Meteorology. National roads conference convened by Prime Minister attended by State Ministers of Transport, Works, or Highways and commercial bodies considered all aspects of transport problems. Commonwealth later put forward plan for Roads and Bridges Construction involving expenditure of £720,000,000, accepted by Premiers' Conference. Fifteenth session of ECAFE held at Broadbeach, Queensland. Australia-Brazil and Australia-Belgium diplomatic missions raised to embassy level. Population reached 10,000,000. High Court ruled that provisions of Commonwealth Re-establishment and Employment Act giving priority in employment to ex-servicemen were invalid because of lapse of time since end of 1939-45 War. Legislation passed in New Guinea providing for income tax at half Australian rates with higher concessional allowances. T1. underground power station, first major station of Snowy Mountains Scheme, commenced operation with output capacity of 160,000 kW. New Immigration Act, abolishing Dictation Test, and making a number of other changes, became operative. Diplomatic relations resumed with Soviet Russia and with United Arab Republic. New South Wales State Cabinet reduced working hours in State-owned coal mines from 40 to 37½ a week. Fourteen mile, £19,000,000 Eucumbene-Tumut tunnel, in Snowy Mountains, completed four months ahead of schedule. Mr. Poc Thieun first Cambodian Minister to Australia; status of mission later raised to that of Embassy. Status of Australian mission to Viet-nam raised to that of Embassy. S.S. *Delfino* left Sydney with 30,000 live sheep for export to United States of America. Remaining profits of Joint Organization (Wool Marketing) transferred to Wool Research Fund. Australian Universities Commission constituted. Australia entered into bilateral agreement with Canada for co-operation in peaceful uses of Atomic Energy. H.R.H. Princess Alexandra visited Australia on six week tour associated with Queensland centenary celebrations. Commonwealth Treasurer attended Commonwealth Finance Ministers Conference in London and meetings of International Monetary Fund and International Bank for Reconstruction and Development in Washington. Malayan Prime Minister (Tunku Abdul Rahman) and Minister of Interior made official visit to Australia. Commonwealth Parliamentary Association Conference held at Canberra. Viscount Dunrossil Governor-General designate. New South Wales State Industrial Commission outlined programme for putting into effect principle of equal pay for women over five-year period. Report of Constitutional Review Committee tabled in House of Representatives. National Service Training suspended. Commonwealth Conciliation and Arbitration Commission granted increase of 28 per cent. in margins of metal trades employees. Prime Minister made official visit to Indonesia and Malaya. Australia signed Antarctic Treaty at Washington relating to activities in and the use of Antarctica. Contracts let for construction of first stage of £120,000,000 power station at Hazlewood (Vic.) planned to double amount of electricity available in Victoria.

STATISTICAL SUMMARY, AUSTRALIA.

NOTE.—(1) In most cases where figures are available back to 1861, these were shown in Official Year Book No. 39, pp. xxviii-xxix.

(2) Most of the statistics in this Summary relate to the periods shown in the table headings. In those comparatively few cases where the statistics relate to other periods, this is indicated in footnotes.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922	1932.	1942.	1952.	1959.
DEMOGRAPHY(a)—								
Population(b) { '000 Males ..	1,737	2,005	2,382	2,799	3,333	3,599	4,311	5,029
{ '000 Females ..	1,504	1,820	2,192	2,712	3,220	3,545	4,217	4,923
{ '000 Persons ..	3,241	3,825	4,574	5,511	6,553	7,144	8,528	9,952
Net Oversea Migration { '000	26.9	3.0	74.4	17.5	-10.1	5.2	111.4	64.5
Marriages .. { '000	24	28	39	47	39	75	77	74
Divorces(d) and Judicial Separations .. { Rate(c)	7.5	7.3	8.8	8.6	6.0	10.6	9.2	7.5
Births .. { '000	190	399	522	1,502	1,955	3,330	7,327	6,983
{ Rate(c)	110	103	122	136	119	135	193	223
Deaths .. { '000	34.5	27.2	27.2	25.0	18.2	18.9	22.9	22.6
{ Rate(c)	47	46	48	54	57	71	82	84
Infant Deaths { '000	14.8	12.2	10.7	9.9	8.7	10.0	9.7	8.5
{ Rate(e)	12.7	10.7	8.4	9.0	5.0	5.3	4.9	4.6
WAGES (ADULT MALES)(b)—	115.3	103.6	68.5	65.7	42.1	39.7	25.2	20.5
Minimum Weekly Wage Rate								
Index Numbers(f) ..	..	..	..	..	..	38.5	85.8	114.3
PRODUCTION—								
Agricultural(g)—								
Wheat .. { Area mill. acs.	3.3	5.1	7.4	9.7	14.7	12.0	10.4	10.4
{ Yield mill. bus.	26	39	72	129	191	167	160	205
{ Av. Yield bus.	7.7	7.5	9.6	13.3	12.9	13.9	15.4	21.7
Oats .. { Area '000 acs.	246	461	617	733	1,085	1,460	2,365	3,974
{ Yield mill. bus.	5.7	9.8	9.6	12.1	15.2	22.3	34.5	86.9
{ Av. Yield bus.	23.3	21.2	15.5	16.6	14.0	15.3	14.6	21.9
Barley .. { Area '000 acs.	68	1.5	116	299	342	784	1,118	2,381
{ Yield mill. bus.	17.3	20.4	17.7	20.4	6.3	18.0	21.9	63.0
{ Av. Yield bus.	284	295	340	305	269	301	170	180
Maize .. { Area '000 acs.	9.3	7.0	8.9	7.8	7.1	7.4	4.0	37.4
{ Yield mill. bus.	32.6	23.9	26.3	25.7	26.2	24.7	23.7	37.4
{ Av. Yield bus.	942	1,688	2,518	2,995	2,635	2,758	1,549	3,018
Hay .. { Area '000 acs.	1,067	2,025	2,868	3,902	3,167	3,575	2,345	5,090
{ Yield '000 tons	1.13	1.20	1.14	1.30	1.20	1.30	1.51	1.69
{ Av. Yield tons	113	110	130	149	145	99	118	105
Potatoes .. { Area '000 acs.	380	323	301	388	397	333	509	575
{ Yield '000 tons	3.37	2.94	2.31	2.60	2.74	3.35	4.31	5.49
{ Av. Yield tons	45	87	101	128	242	255	282	370
Sugar-cane { Area(h)'000acs.	738	1,368	1,682	2,437	4,213	5,154	5,327	10,213
{ Yield '000 tons	16.2	15.7	16.7	19.0	17.4	20.3	18.9	27.6
{ Av. Yield tons	49	64	61	92	113	130	136	129
Vineyards { Area '000 acs.	3.4	5.3	5.0	8.5	14.2	16.0	35.3	30.8
{ Wine mill. gals.	5.4	8.4	12.1	15.4	21.2	20.5	19.7	25.1
Pastoral, Dairying, etc.—								
Livestock(i) { Horses mill.	1.6	1.6	2.3	2.4	1.8	1.6	0.9	0.7
{ Cattle ..	11.1	8.5	11.8	14.4	12.3	13.6	14.9	16.3
{ Sheep ..	106	72	97	86	111	125	118	153
{ Pigs ..	0.9	0.9	1.1	1.0	1.2	1.5	1.0	1.3
Wool(j) .. { mill. lb.	(a) 634	(a) 539	(a) 798	723	1,007	1,167	1,080	1,591
Butter .. { '000 tons	(a) 19	(a) 46	(a) 95	(a) 119	175	168	135	194
Cheese .. { ..	(a) 4.5	(a) 5.3	(a) 7.1	(a) 14.6	14.0	30.1	40.6	43.1
Meat(k)—								
Beef and Veal .. { ..					339	350	534	907
Mutton and Lamb .. { ..					218	307	372	492
Pigmeat .. { ..					51	70	121	102
Total Meat .. { ..					608	727	1,027	1,501

(a) Year ended previous December. (b) At 31st December of previous year. (c) Number per 1,000 of mean population. (d) Decreases made absolute, including decrees for nullity of marriage. (e) Number per 1,000 live births. (f) New Series. Base: Year 1954=100. Excludes Rural Industry. (g) Season ending in year shown. (h) Cane cut for crushing. (i) As at 31st December of previous year for years to 1942, as at 31st March of year shown thereafter. (j) In terms of greasy. (k) Bone-in weight in terms of fresh meat. (l) Not available.

STATISTICAL SUMMARY, AUSTRALIA—continued.

NOTE.—See headnotes on page 1207.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1959.
PRODUCTION—continued.								
Mineral(a)(b)—								
Copper(c) .. '000 tons	(d)	(d)	(d)	(d)	13.5	20.9	18.6	75.0
Gold(c) .. '000 fine oz.	1,243	3,300	2,484	758	595	1,497	896	1,100
Lead(c) .. '000 tons	3.5	11.8	22.2	57.7	162.6	275.5	212.0	327.4
Zinc(c) .. " "	(e)	(e)	190.3	20.7	97.5	170.0	189.2	263.0
Black Coal .. Mill. tons	4.4	6.9	10.6	12.8	8.4	14.2	17.6	20.5
Brown Coal .. " "	..	..	(e)	0.1	2.2	4.6	7.8	12.2
Forestry—								
Sawn output of native timber mill. sup. ft.	(d)	(a) 452	(a) 605	590	237	914	1,393	1,460
Factories—								
Number of factories '000								
Persons employed ..	(f)	(f)	{ 14.5	18.0	21.7	27.0	45.8	54.9
Salaries and wages paid £m.			{ 312	379	337	725	978	1,088
Value of production(g)—			{ 28	68	56	180	612	971
Chemicals, etc. ..			{ 1.1	3.2	7.9	24.8	63.7	159.0
Industrial metals, etc. ..			{ 12.0	23.6	22.8	119.9	413.1	735.8
Textiles, etc. ..			{ 7.5	19.2	{ 6.9	21.0	56.6	95.6
Clothing ..	(d)	(d)	{ 11.1	23.6	{ 11.1	23.6	81.1	110.7
Food, etc. ..			{ 11.8	27.2	{ 28.7	53.2	141.1	234.8
Paper, etc. ..			{ 4.2	9.0	{ 9.6	17.1	68.2	131.7
All groups ..	23.3	29.1	47.5	112.5	111.0	316.5	1,024.9	1,840.6
Value of land and buildings ..			{ 32.5	67.3	{ 106.6	156.3	360.2	951.7
Value of plant and machinery ..	(d)	(d)	{ 31.4	78.1	{ 121.5	169.2	412.5	1,118.7
Net value of production(h)—								
Agriculture .. £m.	17.0	23.8	38.8	81.9	49.7	64.0	246.7	326.2
Pastoral ..	31.3	27.2	52.7	75.1	43.0	85.4	400.5	443.1
Dairying ..	6.0	7.6	16.1	35.3	22.6	34.3	103.8	146.5
Poultry ..	1.9	2.0	4.0	9.0	5.7	6.5	31.5	27.5
Bee-farming ..	0.1	0.1	0.1	0.1	0.1	0.4	0.8	1.6
Total, Rural ..	56.3	60.7	111.7	201.4	121.1	190.6	783.3	944.9
Trapping ..	(d)	(d)	(d)	(d)	1.5	5.0	6.7	6.6
Forestry ..	4.4	2.8	4.8	9.1	3.9	10.2	37.9	51.4
Fishing and Whaling ..			{ 1.1	1.4	{ 1.4	1.8	5.7	11.1
Mines and Quarries(i)	12.1	22.0	23.3	20.0	13.5	33.4	97.2	118.6
Total, Non-Rural ..	16.5	24.8	29.2	30.5	20.3	50.4	147.5	187.7
Total, Primary ..	72.8	85.5	140.9	231.9	141.4	241.0	930.8	1,132.6
Factories(g) ..	23.3	29.1	47.5	112.5	111.0	316.5	1,024.9	1,840.6
Total All Industries ..	96.1	114.6	188.4	344.4	252.4	557.5	1,955.7	2,973.2
BUILDING(j)—								
Permits, New Dwellings { '000								
.. All Buildings(k) £m.	(d)	(d)	(d)	(d)	{ 2.1	9.7	32.8	42.5
					{ 1.5	9.6	80.4	153.4
					{ 4.6	13.5	116.4	259.9
OVERSEA TRADE—								
Imports .. £m. f.o.b.	(a)	(a)	(a)					
Exports .. " "	34	38	61	94	52	174	1,053	797
	36	50	79	128	108	169	675	811
Principal Exports(l)—								
Wool .. { Mill. lb.(m) ..	641	529	734	946	903	938	1,036	1,392
.. { £m. f.o.b. ..	20	15	26	48	32	58	323	302
Wheat .. { '000 tons ..	258	543	1,477	2,677	3,413	598	1,685	1,463
.. { £m. f.o.b. ..	1.9	2.8	9.6	28.6	19.2	4.6	55.3	38.4
Flour .. { '000 short tons ..	33	97	176	360	611	414	789	447
.. { £m. f.o.b. ..	0.3	0.6	1.4	5.5	3.8	4.2	33.0	13.3
Butter .. { mill. lb. ..	4	35	102	127	202	130	25	173
.. { £m. f.o.b. ..	0.2	1.4	4.6	8.0	10.3	8.1	4.6	25.0

(a) Year ended previous December. (b) Breaks in the continuity of the series occurred in 1931 and 1951. (c) Mine production, i.e., metal content of minerals produced. (d) Not available. (e) Less than .05. (f) Owing to variation in classification, effective comparison is impossible. (g) For definition see page 151. (h) Gross value from 1891 to 1921–22. Prior to 1922, figures are for years ended previous December. For definitions of gross and net value see page 1127. (i) Incomplete. (j) Six capital cities and suburbs. (k) Includes additions and alterations. (l) Australian produce except gold, which includes re-exports. (m) In terms of greasy.

STATISTICAL SUMMARY, AUSTRALIA—continued.

NOTE.—See headnotes on page 1207.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1959.
OVERSEA TRADE—continued.	(a)	(a)	(a)					
Principal Exports(b)—continued.								
Hides and Skins £m. f.o.b.	0.9	1.3	3.2	3.1	2.3	6.0	17.1	23.6
Meats "	0.5	2.6	4.3	5.5	6.4	14.1	35.5	97.2
Fruit(c) "	..	0.2	0.5	3.0	4.8	4.0	19.5	35.3
Sugar "	..	(d)	(d)	(d)	2.5	2.6	6.9	32.2
Gold "	5.7	14.3	12.0	3.5	11.9	9.2	7.0	3.3
Silver and Lead(e) "	1.9	2.3	3.2	2.7	2.9	7.4	32.1	25.4
Ores and Concentrates "	..	(d)	3.7	0.8	0.2	1.3	20.4	12.0
Principal Imports—								
Vegetable foodstuffs, etc. "	}	3.6	3.7	4.0	2.6	6.1	25.0	27.8
Apparel, etc. "		10.9	16.2	31.0	15.4	32.7	203.6	97.0
Oil, etc. "		1.2	1.6	4.7	5.5	16.2	87.5	104.5
Metals, etc. "		7.8	14.0	22.8	7.4	71.8	393.4	292.9
Rubber, etc. "		0.5	1.4	1.7	0.8	3.2	34.0	16.8
Paper, etc. "		1.6	2.6	4.4	4.4	4.3	68.8	48.2
TRANSPORT AND COMMUNICATION—								
Shipping—	(a)	(a)	(a)					
Oversea Vessels, No. ..	3,778	4,028	4,174	3,111	3,057	2,544	4,136	5,463
Entrances and tons ..	4.7	6.5	10.0	9.1	11.4	10.8	18.2	26.0
Clearances "								
Oversea Cargo—								
Discharged mill. tons(g)	}	(f)	(f)	2.4	3.0	5.5	14.4	16.9
Shipped " (g)			(f)	5.8	6.7	4.2	5.7	10.1
Interstate Vessels, No. ..			9,605	9,782	7,957	9,100	7,524	9,995
Entrances and tons ..	(f)	(f)	13.1	12.8	11.1	12.9	15.8	18.9
Clearances "								
Interstate Cargo Shipped mill. tons(g)			(f)	5.5	4.0	10.0	9.0	13.4
Government Railways—	(h)	(h)	(h)					
Route-miles '000	10.4	12.8	16.8	23.5	27.0	27.2	26.8	26.3
Passenger-journeys mill.	84	115	228	335	303	475	501	485
Goods and livestock carried mill. tons	9.4	15.5	25.5	31.5	26.1	38.9	44.3	48.0
Train-miles run mill.	29.7	38.2	55.2	56.1	63.8	88.5	93.4	91.3
Tramways and Omnibuses—								
Passenger-journeys—								
Trams mill.	}	(f)	360	569	589	874	663	373
Omnibuses(j) "			(f)	(f)	(f)	193	356	405
Motor vehicles on the register—								
Cars '000	}	..	(f)	102	420	451	1,026	1,783
Commercial vehicles "			(f)	96	96	251	585	766
Civil Aviation (Internal)—								
Plane-miles flown mill.	..	..	..	..	2.5	7.8	41.8	40.3
Passengers carried '000	..	..	..	..	57	152	1,829	2,235
Passenger-miles mill.	..	..	..	..	(f)	76	722	944
Freight car- } '000 short tons	..	..	..	..	0.1	1.2	57.5	62.8
ried mill. ton-miles	..	..	..	..	(f)	0.9	26.7	28.8
Postal—	(a)	(a)	(a)					
Postal matter dealt with(j)								
mill. articles	286	365	680	778	887	1,124	1,482	1,954
Telegrams and cablegrams mill.	10.0	9.9	13.3	16.8	13.9	26.1	29.8	22.5
Telephones—								
Instruments '000	7	29	103	259	485	739	1,301	2,056
Lines "	(f)	25	85	196	364	531	928	1,443
Calls—Trunk mill.	(f)	(f)	(f)	14.0	28.9	45.3	69.4	123.5
Local "	(f)	(f)	(f)	221	369	664	968	1,380
Broadcast Listeners' Licences '000	..	..	..	(k) 36	369	1,320	1,961	2,264
PUBLIC FINANCE—								
Commonwealth—								
Consolidated Revenue Fund—		(h)	(h)					
Revenue £m.	..	11	21	64	72	210	1,017	1,296
Expenditure "	..	4	15	64	72	210	1,017	1,296
Net loan fund expenditure .. .. . "	..	..	1	5	4	213	55	94
Taxation collections "	..	9	16	50	54	180	934	1,133

(a) Year ended previous December. (b) Australian produce except gold, which includes re-exports. (c) Excludes fruit juices. (d) Less than .05. (e) Includes concentrates. (f) Not available. (g) Tons weight plus tons measurement. (h) Year ended 30th June. (i) Government and municipal only. (j) Letters, post-cards, lettercards, newspapers, packets, parcels and registered articles. (k) Year 1923-24.

STATISTICAL SUMMARY, AUSTRALIA—continued.

NOTE.—See headnotes on page 1207.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1959.
PUBLIC FINANCE—continued.								
State—								
Consolidated Revenue Funds—								
Revenue .. £m.	(a)	28	41	85	100	152	388	640
Expenditure .. "	(a)	29	41	87	121	149	392	647
Net loan expenditure(b) .. "	(a)	9	16	34	6	8	198	169
Taxation collections .. "	(a)	3	5	18	33	57	63	138
Public Debt(c)—								
Commonwealth .. £m.			6	354	319	638	1,869	1,649
State .. "	(d) 155	213	279	519	789	911	1,396	2,392
Total .. "	(d) 155	213	285	873	1,108	1,549	3,265	4,041
Overseas .. "	(a)	(a)	194	412	522	516	406	451
In Australia .. "	(a)	(a)	91	461	586	1,033	2,859	3,590
Private Finance—								
Commonwealth Note Issue(e) £m.	..	..	8	54	51	103	303	396
All cheque-paying banks—								
Advances(f) .. "	125	94	109	183	261	324	817	999
Deposits(f) .. "	98	91	143	289	319	483	1,353	1,695
Bank clearings(d) .. "	(a)	338	662	1,702	1,581	2,828	12,160	16,926
Savings bank deposits(g) .. "	15	31	59	154	198	274	892	1,391
Life Assurance(d)(h)—								
Ordinary—								
Policies .. '000		414	484	730	871	1,340	2,553	3,577
Sum assured .. £m.		108	109	181	285	463	1,212	2,873
Industrial—								
Policies .. '000	(a)	236	467	973	1,550	2,780	3,843	3,531
Sum assured .. £m.		5	10	30	67	127	254	3,287
Total—								
Policies .. '000		650	951	1,703	2,421	4,120	6,396	7,108
Sum assured .. £m.		113	119	211	352	590	1,466	6,160
SOCIAL STATISTICS—								
Commonwealth Social Services—								
Age and Invalid .. '000(c)	..	..	90	144	256	336	420	598
Pensions .. £m.	..	..	2.2	5.4	11.1	19.3	59.8	129.6
Children Endowed, .. '000(c)	..	..	..	..	..	910	2,518	3,172
Claims in force .. £m.	..	..	..	..	..	11.3	46.6	67.5
Total Commonwealth Health and Social Services(i) £m.	..	..	2.2	6.1	11.5	30.9	137.6	278.2
War Pensions .. '000(c)								
.. £m.	..	..	..	225	274	220	525	642
Service Pensions .. '000(c)								
.. £m.	..	..	..	7.0	7.4	7.5	31.8	50.9
State Social Services(j)—								
Education(d)—								
Government Schools—								
Schools .. '000	6.2	7.0	8.0	9.4	10.1	9.5	7.6	7.9
Staff .. "	12.6	14.5	17.0	26.1	33.8	32.1	36.7	51.8
Students .. "	561	638	639	819	937	887	1,013	1,492
Non-government Schools—								
Schools .. '000	2.0	2.5	1.9	1.7	1.8	1.9	1.9	2.1
Staff .. "	6.0	8.3	7.8	8.8	10.0	11.4	13.3	16.3
Students .. "	125	149	161	199	221	257	326	473
Universities(k)—								
Number .. "	4	4	5	6	6	8	9	10
Staff(l) .. "	(a)	(a)	249	482	703	1,416	3,082	4,210
Students .. '000	1.6	1.8	3.4	8.0	9.8	13.9	31.7	41.9
Public Hospitals—								
Number .. "	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
Staff—Medical .. '000	(a)	(a)	285	355	404	513	566	675
Nursing .. "	(a)	(a)	1.1	1.5	3.2	3.9	6.9	9.1
In-patients, cases treated .. mn	54	(n) 91	134	215	371	595	896	1,124
POLICE AND PRISONS(d)—								
Police .. '000	5.3	5.8	6.4	6.9	8.6	9.7	12.3	14.5
Prisons .. "	(a)	(a)	104	91	85	70	69	73
Prisoners .. '000	(a)	4.3	3.1	2.9	4.2	3.2	4.8	6.6
PRICES(d)—								
"C" Series Retail Price Index(o)	..	..	1,000	1,680	1,448	1,673	3,124	{ (p) 4,357 (q) 4,340

(a) Not available. (b) Loan Expenditure on works, services, etc. (c) At 30th June.
 (d) Year ended previous December. (e) At end of June. (f) Figures for 1892 are averages of weekly balance for the December quarter; the remainder are for the June quarter. (g) 1891 at 31st December, thereafter at 30th June. (h) Existing business in Australia. (i) Excludes war and service pensions. (j) Includes Northern Territory and Australian Capital Territory. (k) Excludes Australian National University. (l) Teaching and research staff. Includes part-time. (m) Year 1891-92 for Victoria. (n) South Australia includes Adelaide Hospital only. (o) Base: 1911 = 1,000. (p) Excludes price movement of potatoes and onions. (q) Includes price movement of potatoes and onions.

APPENDIX.

(Some recent information which has come to hand since the various chapters were sent to press is given hereunder in summarized form. For further or more detailed information, and for the latest available statistics, reference should be made to other publications issued by this Bureau (see p. 1166), notably the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*.)

CHAPTER II.—PHYSIOGRAPHY.

§ 2. Climate and Meteorology of Australia.

Rainfall: Australian Capital Cities, p. 48.—Rainfall recorded in Australian capital cities during 1959 was as follows:—Canberra, 34.41 ins.; Perth, 24.23 ins.; Adelaide, 11.32 ins.; Brisbane, 45.84 ins.; Sydney, 59.67 ins.; Melbourne, 25.84 ins.; Hobart, 19.28 ins.

CHAPTER III.—GENERAL GOVERNMENT.

§ 2. Parliaments and Elections.

State Elections, p. 69.—Elections were held in Queensland during 1959. Particulars of the voting were as follows:—

Electors enrolled	..	..	Males	..	..	415,222
			Females	..	..	416,176
			Total	..	..	831,398
Contested Electorates—						
Electors who voted	..	..	Males	..	..	375,801
			Females	..	..	377,130
			Total	..	..	752,931

§ 3. Administration and Legislation.

Governors and State Ministers, pp. 76–78.—(i) *New South Wales*—

Ministry (from 31st May, 1960).

<i>Premier—</i>	<i>Minister for Conservation—</i>
THE HON. R. J. HEFFRON, M.L.A.	THE HON. A. G. ENTICKNAF, M.L.A.
<i>Deputy Premier, Treasurer and Minister for Lands—</i>	<i>Minister for Housing and Minister for Co-operative Societies—</i>
THE HON. J. B. RENSHAW, M.L.A.	THE HON. A. LANDA, M.L.A.
<i>Attorney-General and Vice-President of the Executive Council—</i>	<i>Minister for Education—</i>
THE HON. R. R. DOWNING, M.L.C.	THE HON. E. WETHERELL, M.L.A.
<i>Chief Secretary and Minister for Tourist Activities—</i>	<i>Minister for Agriculture—</i>
THE HON. C. A. KELLY, M.L.A.	THE HON. R. B. NOTT, M.L.A.
<i>Minister for Local Government and Minister for Highways—</i>	<i>Minister for Labour and Industry—</i>
THE HON. P. D. HILLS, M.L.A.	THE HON. J. J. MALONEY, M.L.C.
<i>Minister for Health—</i>	<i>Secretary for Mines—</i>
THE HON. W. F. SHEAHAN, Q.C., M.L.A.	THE HON. J. B. SIMPSON, M.L.A.
<i>Minister for Child Welfare and Minister for Social Welfare—</i>	<i>Secretary for Transport—</i>
THE HON. F. H. HAWKINS, M.L.A.	THE HON. J. M. A. MCMAHON., M.L.A.
	<i>Secretary for Public Works—</i>
	THE HON. P. N. RYAN, M.L.A.
	<i>Minister of Justice—</i>
	THE HON. N. J. MANNIX, M.L.A.

(ii) Queensland—

*Ministry (from 16th June, 1960).**Premier and Chief Secretary; and Vice-President of the Executive Council—*THE HON. G. F. R. NICKLIN, M.M.,
M.L.A.*Minister for Labour and Industry—*

THE HON. K. J. MORRIS, M.L.A.

Minister for Education and Migration—

THE HON. J. C. A. PIZZEY, M.L.A.

Minister for Justice and Attorney-General—

THE HON. A. W. MUNRO, M.L.A.

Treasurer and Minister for Housing—

THE HON. T. A. HILEY, M.L.A.

Minister for Development, Mines, Main Roads and Electricity—

THE HON. E. EVANS, M.L.A.

Minister for Agriculture and Forestry—

THE HON. O. O. MADSEN, M.L.A.

Minister for Health and Home Affairs—

THE HON. H. W. NOBLE, M.L.A.

Minister for Transport—

THE HON. G. W. W. CHALK, M.L.A.

Minister for Public Works and Local Government—

THE HON. L. H. S. ROBERTS, M.L.A.

Minister for Public Lands and Irrigation—

THE HON. A. R. FLETCHER, M.L.A.

(iii) *South Australia*—On 21st January, 1960, the name of the portfolio held by THE HON. C. D. ROWE, M.L.C., was changed to Attorney-General and Minister of Labour and Industry.

Leaders of the Opposition, p. 78.—*South Australia.* Following on the death of Mr. O'Halloran, Mr. F. H. Walsh was elected Leader of the Opposition on 4th October, 1960.

§ 5. Cost of Parliamentary Government, p. 86.

The cost of Parliamentary Government, Commonwealth and individual States, for the year 1958–59 was as follows:—

Commonwealth, £2,986,399 (6s. 0d. per head); New South Wales, £898,897 (4s. 10d.); Victoria, £725,261 (5s. 3d.); Queensland, £470,289 (6s. 4d.); South Australia, £377,463 (8s. 4d.); Western Australia, £450,270 (12s. 8d.); Tasmania, £256,856 (15s. 1d.); and total, £6,165,435 (12s. 5d.).

The amounts expended under the major headings for all Governments during 1958–59 were:—Governor-General or Governor, £391,031; Official Establishments, £20,774; Ministry, £409,846; Parliament, £3,937,210; Electoral, £1,378,723.

CHAPTER VI.—MANUFACTURING INDUSTRY.

Summary, p. 153.—The following table gives a summary of operations in manufacturing industries during 1958–59:

FACTORIES: 1958-59, SUMMARY.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1. Factories .. No.	22,684	16,527	5,651	4,235	4,125	1,666	54,888
2. Persons employed(a) ..	449,518	362,979	104,753	94,165	48,417	28,424	1,088,256
3. Salaries and wages paid(b) £'000	413,015	324,336	85,497	83,145	38,732	25,828	970,553
4. Value of power, fuel, light, etc., used .. £'000	76,275	43,377	14,964	14,590	9,587	5,459	164,252
5. „ materials used .. £'000	1,070,862	778,716	280,757	188,358	107,853	58,533	2,485,079
6. „ production(c) .. £'000	803,315	608,948	155,465	139,810	78,762	54,301	1,840,601
7. „ output .. £'000	1,950,452	1,431,041	451,186	342,758	196,202	118,293	4,489,932
8. „ land and buildings £'000	400,643	313,230	68,995	66,278	40,690	61,830	931,666
9. „ plant and machinery .. £'000	459,718	347,428	112,528	84,749	66,098	48,226	1,118,747

(a) Average over whole year; includes working proprietors.

(b) Excludes amounts drawn by working proprietors.

4 and 5.

(c) Value of production equals figures in line 7 less totals of figures in lines

Value of Production in Classes of Industry, p. 176.—The following table shows, for the year 1958–59 the value of production in Australia for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, AUSTRALIA, 1958-59.
(£'000.)

Class of Industry.	Value of Production.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	43,973
II. Bricks, Pottery, Glass, etc.	38,449
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	158,996
IV. Industrial Metals, Machines, Conveyances ..	735,784
V. Precious Metals, Jewellery, Plate ..	7,582
VI. Textiles and Textile Goods (not Dress) ..	95,626
VII. Skins and Leather (not Clothing or Footwear) ..	17,821
VIII. Clothing (except Knitted) ..	110,744
IX. Food, Drink and Tobacco ..	234,762
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	88,144
XI. Furniture of Wood, Bedding, etc. ..	30,263
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	131,683
XIII. Rubber ..	32,805
XIV. Musical Instruments ..	2,077
XV. Miscellaneous Products ..	37,230
XVI. Heat, Light and Power ..	74,662
Total ..	1,840,601

CHAPTER X.—VITAL STATISTICS.

§ 2. Marriages.

Age and Conjugal Condition at Marriage, p. 331.—A summary of the previous conjugal condition of bridegrooms and brides in 1959 in relation to age at marriage is as follows.

**AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES:
AUSTRALIA, 1959.**

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20 ..	3,478	..	..	3,478	18,919	7	1	18,927
20–24 ..	32,262	14	50	32,326	33,909	81	253	34,243
25–29 ..	18,690	62	463	19,215	7,695	177	987	8,859
30–34 ..	7,227	147	984	8,358	2,724	293	1,229	4,246
35–39 ..	2,543	182	927	3,652	1,223	379	1,038	2,640
40–44 ..	1,063	265	727	2,055	519	424	695	1,638
45–49 ..	666	346	635	1,647	369	490	518	1,377
50–54 ..	340	410	370	1,120	230	434	250	914
55–59 ..	192	467	238	897	138	327	111	576
60–64 ..	98	382	101	581	95	298	45	438
65 and over ..	112	857	65	1,034	81	389	35	505
Total ..	66,671	3,132	4,560	74,363	65,902	3,299	5,162	74,363

In 1959 the proportional distribution (per cent.) of bridegrooms and brides according to previous conjugal condition was:—

Bridegrooms: Bachelors, 89.66; Widowers, 4.21; Divorced, 6.13.

Brides: Spinsters, 88.62; Widows, 4.44; Divorced, 6.94.

In 1959 the average age of bridegrooms was 28.39 years and of brides 25.01 years.

Celebration of Marriages, p. 333.—The number of marriages in 1959 celebrated by ministers of religion in the various denominations or by civil officers was as follows:—

MARRIAGES IN EACH DENOMINATION, 1959.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Proportion of Total.
Church of England	8,797	4,644	2,832	1,305	1,596	923	30	111	20,238	27.21
Roman Catholic ..	7,506	5,659	2,851	1,376	1,387	522	69	100	19,470	26.18
Methodist ..	2,604	2,593	1,633	1,577	629	388	3	13	9,440	12.69
Presbyterian ..	2,971	3,273	1,873	271	352	133	18	29	8,920	12.00
Greek Orthodox ..	749	800	119	252	50	12	4	8	1,994	2.68
Baptist ..	403	312	181	141	73	66	..	3	1,179	1.59
Lutheran ..	169	243	255	391	35	5	6	10	1,114	1.50
Congregational ..	278	258	97	247	91	40	..	2	1,013	1.36
Church of Christ ..	87	347	64	207	92	25	1	3	826	1.11
Salvation Army ..	111	99	110	48	32	26	5	1	432	0.58
Seventh-Day Adventist ..	88	38	30	11	17	6	..	..	190	0.26
Unitarian ..	2	43	..	6	..	..	..	..	51	0.07
Other Christian ..	166	127	165	49	156	25	29	..	717	0.96
Hebrew ..	116	157	3	..	19	..	..	..	295	0.40
Other Non-Christian ..	..	..	..	6	..	..	..	..	6	0.01
Total ..	24,047	18,593	10,213	5,887	4,529	2,171	165	280	65,885	88.60
Civil Officers ..	4,154	1,863	368	727	858	396	40	72	8,478	11.40
Grand Total ..	28,201	20,456	10,581	6,614	5,387	2,567	205	352	74,363	100.00

PROPORTION OF TOTAL.

(Per cent.)

Denominational ..	85.27	90.89	96.52	89.01	84.07	84.57	80.49	79.55	88.60
Civil ..	14.73	9.11	3.48	10.99	15.93	15.43	19.51	20.45	11.40

§ 4. Fertility and Reproduction.

Number of Live Births and Confinements, p. 334.—A summary of live births and confinements registered in 1959 is shown in the following table. The table also shows the confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS.									
Single Births ..	79,043	60,816	34,841	19,860	16,695	8,409	782	1,343	221,789
Twins ..	1,798	1,412	740	506	416	216	14	19	5,121
Triplets ..	25	17	18	6	..	..	..	..	66
Males ..	41,316	32,041	18,295	10,325	8,726	4,423	407	708	116,241
Females ..	39,550	30,204	17,304	10,047	8,385	4,202	389	654	110,735
Total ..	80,866	62,245	35,599	20,372	17,111	8,625	796	1,362	226,976

LIVE BIRTHS AND CONFINEMENTS, 1959—*continued*.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE.									
Twins	48	10	14	10	14	4	..	1	101
Triplets	2	4	..	..	..	..	..	..	6
CONFINEMENTS RESULTING IN ABOVE BIRTHS.									
Nuptial	76,003	59,248	33,085	19,390	16,024	8,133	657	1,322	213,862
Ex-nuptial	3,972	2,286	2,139	730	886	386	132	31	10,562
Total	79,975	61,534	35,224	20,120	16,910	8,519	789	1,353	224,424

Ex-nuptial Live Births, p. 344.—The following table shows the number of ex-nuptial live births and the proportion of total live births in each State and Territory in 1959:—

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number	4,017	2,308	2,161	745	904	388	133	31	10,687
Proportion of Total Births	4.97	3.71	6.07	3.66	5.28	4.50	16.71	2.28	4.71

§ 5. Mortality.

Age Distribution, p. 361.—A summary of the ages at death for Australia for the year 1959 is given in the following table:—

AGE AT DEATH: AUSTRALIA, 1959.

Age at Death.	Males.	Fe-males.	Per-sons.	Age at Death	Males.	Fe-males.	Per-sons.
Under 1 week	1,765	1,281	3,046	5-9 years	302	201	503
1 week and under 2 weeks	130	99	229	10-14	236	139	375
2 weeks 3	69	44	113	15-19	536	165	701
3 28 days	53	34	87	20-24	560	177	737
				25-29	495	227	722
				30-34	727	370	1,097
Total under 28 days	2,017	1,458	3,475	35-39	925	574	1,499
				40-44	1,188	773	1,961
				45-49	1,941	1,237	3,178
28 days and under 3 months	244	164	408	50-54	2,741	1,434	4,175
3 months and under 6	263	242	505	55-59	3,980	1,951	5,931
6 12	270	231	501	60-64	4,726	2,740	7,466
				65-69	6,639	4,075	10,714
				70-74	7,198	5,388	12,586
Total under 1 year	2,794	2,095	4,889	75-79	6,552	5,846	12,398
				80-84	4,449	5,357	9,806
				85-89	2,574	3,720	6,294
1 year	251	182	433	90-94	912	1,579	2,491
2 years	139	107	246	95-99	214	412	626
3	109	73	182	100 and over	14	27	41
4	77	65	142	Age not stated	14	5	19
Total under 5 years	3,370	2,522	5,892	Total, All Ages	50,293	38,919	89,212

Causes of Death, p. 366.—The following table shows deaths of males, females and persons registered in 1959, classified according to the Abbreviated List of 50 Causes provided in the Seventh Revision of the International List:—

CAUSES OF DEATH: AUSTRALIA, 1959.

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS (BASED ON THE SEVENTH REVISION, 1955, OF THE INTERNATIONAL LIST).

Cause of Death.(a)		Detailed List Numbers.	Males.	Females.	Persons.
B 1	Tuberculosis of respiratory system	001-008	417	92	509
B 2	Tuberculosis, other forms	010-019	23	17	40
B 3	Syphilis and its sequelae	020-029	84	29	113
B 4	Typhoid fever	040	..	2	2
B 6	Dysentery, all forms	045-048	8	7	15
B 7	Scarlet fever and streptococcal sore throat	050, 051	3	3	6
B 8	Diphtheria	055	3	2	5
B 9	Whooping cough	056	9	5	14
B10	Meningococcal infections	057	24	20	44
B12	Acute poliomyelitis	080	5	..	5
B14	Measles	085	9	11	20
B15	Typhus and other rickettsial diseases	100-108	1	1	2
B17	All other diseases classified as infective and parasitic	(b)	167	153	320
B18	Malignant neoplasms of:—				
	Digestive organs and peritoneum	150-159	2,794	2,350	5,144
	Lung	162, 163	1,380	198	1,578
	Breast	170	17	1,183	1,200
	Genital organs	171-179	825	1,018	1,843
	Urinary organs	180, 181	399	179	578
	Leukemia and aleukemia	204	306	249	555
	Other malignant and lymphatic neoplasms	(c)	1,408	937	2,345
	Benign and unspecified neoplasms	210-239	84	120	204
	B19	Diabetes mellitus	260	434	679	1,113
B21	Anaemias	290-293	107	171	278
B22	Vascular lesions affecting central nervous system	330-334	5,110	6,801	11,911
B23	Non-meningococcal meningitis	340	68	43	111
B24	Rheumatic fever	400-402	12	20	32
B25	Chronic rheumatic heart disease	410-416	329	393	722
B26	Arteriosclerotic heart disease	420	12,678	6,774	19,452
B27	Degenerative heart disease	421, 422	2,820	3,018	5,838
B27	Other diseases of heart	430-434	1,567	1,291	2,858
B28	Hypertension with heart disease	440-443	862	1,074	1,936
B29	Hypertension without mention of heart	444-447	463	535	998
B30	Influenza	480-483	399	294	693
B31	Pneumonia	490-493	1,995	1,534	3,529
B32	Bronchitis	500-502	1,038	257	1,295
B33	Ulcer of stomach and duodenum	540, 541	496	183	679
B34	Appendicitis	550-553	81	54	135
B35	Intestinal obstruction and hernia	560, 561, 570	266	254	520
B36	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	219	205	424
B37	Cirrhosis of liver	581	306	174	480
B38	Nephritis and nephrosis	590-594	573	471	1,044
B39	Hyperplasia of prostate	610	523	..	523
B40	Complications of pregnancy, childbirth and the puerperium	640-652, 660	..	104	104
B41	Congenital malformations	670-689	..	552	1,214
B42	Birth injuries, post-natal asphyxia and atelectasis	750-759	662	502	1,251
B43	Infections of the newborn	760-762	749	68	1,59
B44	Other diseases peculiar to early infancy and immaturity unqualified	763-768	91	..	..
B45	Senility without mention of psychosis, ill-defined and unknown causes	769-776	792	607	1,399
B46	General Arteriosclerosis	780-795	493	600	1,093
	Other diseases of circulatory system	450	961	1,027	1,988
	Other diseases of circulatory system	451-468	554	346	900
	Other diseases of respiratory system	470-475, 510-527	886	402	1,288
	All other diseases	Residual	2,110	2,028	4,138
BE47	Motor vehicle accidents	E810-E835	1,871	548	2,419
BE48	All other accidents	E800-E802	1,884	990	2,874
BE49	Suicide and self-inflicted injuries	E840-E962	..	..	..
		E963, E970-E979	827	288	1,115
		E964, E965	..	..	..
E980-E999		101	56	157	
BE50	Homicide and operations of war	E980-E999	101	56	157
All Causes .. ..		..	50,293	38,919	89,212

(a) No deaths were recorded in the following categories for 1959:—B5, Cholera (043); B11, Plague (058); B13, Smallpox (084); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) 140-148, 160, 161, 164, 165, 190-203, 205.

CHAPTER XI.—HOUSING, ETC.

§ 4. Statistical Summary—New Building.

New Houses, p. 397.—The number of new houses commenced, completed and under construction in each State and Territory during 1959 was as follows:—

NEW HOUSES: NUMBER, 1959.

(Including Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
Commenced ..	27,184	22,362	8,548	8,665	5,469	2,478	395	1,322	76,423
Completed ..	28,681	23,997	8,736	8,628	5,862	2,673	345	1,188	80,110
Under construction at 31st December, 1959..	15,008	15,620	2,759	4,968	3,079	1,877	215	1,013	44,539

(a) Includes flats.

Of the 80,110 new houses completed during 1959, 30,755 had outer walls of brick, brick veneer, concrete or stone, 27,747 of wood (weatherboard, etc.), 21,066 of fibro-cement and 542 of other materials.

New Flats, p. 399.—The following table shows the number of new flats commenced, completed and under construction in each State and the Australian Capital Territory during 1959:—

NEW FLATS: NUMBER, 1959.

(Individual Flats.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aust.(a)
Commenced ..	3,842	2,463	905	713	254	168	358	9,703
Completed ..	2,520	1,694	803	591	224	120	486	6,438
Under construction at 31st December, 1959 ..	2,834	1,645	461	554	101	211	324	6,130

(a) Excludes figures for the Northern Territory, which are not available for publication.

Value of New Buildings, p. 400.—The values of all new buildings commenced, completed and under construction in each State and Territory are shown in the following table for the year 1959:—

NEW BUILDINGS: VALUE, 1959.

(Including Estimated Value of Owner-built Houses.)

(£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Commenced ..	178,009	140,468	48,175	47,199	27,210	16,734	2,850	13,390	474,035
Completed ..	162,263	142,608	47,546	44,126	28,376	14,128	2,528	15,215	456,790
Under construction at 31st December, 1959 ..	130,264	118,110	27,782	36,460	20,003	15,455	2,193	12,298	362,565

The value of new buildings completed in Australia during 1959, according to kind of building, was as follows:—*Houses*—Brick, brick veneer, concrete and stone, £118,743,000; wood (weatherboard, etc.), £82,596,000; fibro-cement, £51,790,000; other, £1,648,000; Total, £254,777,000; *Other Buildings*—Flats, £16,311,000; hotels, guest-houses, etc., £6,879,000; shops, £15,217,000; factories, £43,243,000; offices, £21,944,000; other business

premises, £25,497,000; educational, £28,919,000; religious, £7,266,000; health, £13,407,000; entertainment and recreation, £9,269,000; miscellaneous, £14,061,000; Total, £202,013,000; Grand Total, New Buildings, £456,790,000.

Persons Engaged in New Building, p. 401.—The number of persons engaged on jobs carried out by builders of new buildings in Australia at 16th December, 1959, was as follows:—Carpenters, 47,999; bricklayers, 12,196; painters, 11,455; electricians, 6,513; plumbers, 10,704; builders' labourers, 20,591; other, 17,577; total, 127,035. Of this total, contractors actually working on jobs numbered 9,820, sub-contractors actually working on jobs 19,555 and wage earners 97,660.

CHAPTER XII.—LABOUR, WAGES AND PRICES.

A. RETAIL PRICES AND PRICE INDEXES.

§ 4. Tabular Statements of Retail Price Index Numbers.

The Consumer Price Index.—A new retail price index, entitled the Consumer Price Index, was published for the first time in Statistical Bulletin No. 837 of 12th August, 1960. The bulletin contains a brief description of the index together with index numbers for periods from June Quarter, 1949, to June Quarter, 1960. For current statistical purposes the new index replaces both the "C" Series Retail Price Index and the Interim Retail Price Index. The Interim Index was discontinued after the issue for March Quarter, 1960. A summary of Consumer Price Index Numbers is given in the two following tables.

CONSUMER PRICE INDEX NUMBERS.

SIX CAPITAL CITIES, SEPARATELY AND COMBINED.(a)

(Base of Index for Each City and for Six Capitals: Year 1952-53 = 100.0.)

Period.	Sydney.	Mel- bourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capital Cities.(b)
Year ended June—							
1950	65.6	66.2	67.1	66.2	66.2	64.7	66.0
1951	74.5	74.6	75.1	74.7	74.4	73.3	74.6
1952	91.9	91.0	91.8	91.4	90.4	90.4	91.4
1953	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1954	101.6	102.0	102.0	102.3	103.0	105.0	102.0
1955	102.3	102.0	102.9	103.5	105.2	104.9	102.6
1956	105.7	108.1	106.3	106.9	107.9	110.2	106.9
1957	112.9	114.0	112.0	111.1	112.9	116.9	113.1
1958	114.5	114.4	114.4	111.9	113.6	117.0	114.2
1959	115.3	116.6	118.2	114.5	114.7	118.7	116.0
1960	117.8	120.0	121.2	118.0	116.9	120.8	118.9
Quarter—							
1958—June ..	115.1	114.6	115.9	112.7	114.1	117.3	114.8
September ..	114.8	114.9	116.7	113.5	114.4	117.7	114.9
December ..	115.2	116.4	117.9	114.2	114.3	118.7	115.8
1959—March ..	115.5	117.1	119.0	115.0	114.7	119.1	116.3
June ..	115.8	117.9	119.1	115.3	115.5	119.3	116.8
September ..	116.3	118.2	120.2	116.3	115.9	119.7	117.3
December ..	117.2	118.8	120.8	116.9	115.7	120.1	118.0
1960—March ..	118.2	119.8	121.6	118.3	117.1	120.8	119.0
June ..	119.6	123.0	122.3	120.6	119.0	122.6	121.1

(a) The index numbers measure price movements in each city individually and for the weighted average of the six capitals. They do not measure differences in price levels as between cities.
(b) Weighted average.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(Base of Index for Each Group and for All Groups: Year 1952-53 = 100.0.)

Period.	Food.	Clothing and Drapery.	Housing.	Household Supplies and Equipment.	Miscellaneous.	All Groups.
Year ended June—						
1950	58.6	67.4	76.1	71.1	69.6	66.0
1951	68.6	77.8	81.0	78.1	76.3	74.6
1952	89.9	93.5	89.1	92.9	92.3	91.4
1953	100.0	100.0	100.0	100.0	100.0	100.0
1954	103.5	100.7	104.8	101.6	99.9	102.0
1955	104.3	101.0	108.4	101.4	99.9	102.6
1956	110.2	102.0	115.1	101.6	105.9	106.9
1957	115.3	103.9	122.1	105.8	118.0	113.1
1958	113.3	107.0	127.3	107.5	119.7	114.2
1959	115.4	108.2	130.6	108.7	121.2	116.0
1960	119.8	109.4	135.2	109.8	123.9	118.9
Quarter—						
1958—June	113.9	108.2	128.8	107.3	119.8	114.8
September	113.7	108.2	129.2	107.9	120.1	114.9
December	114.6	108.4	130.4	108.7	121.3	115.8
1959—March	116.3	108.1	130.9	108.9	121.5	116.3
June	117.1	107.9	131.9	109.1	121.9	116.8
September	117.9	108.3	132.5	109.4	122.3	117.3
December	118.4	109.2	133.9	109.6	123.0	118.0
1960—March	120.3	109.5	134.8	110.0	123.8	119.0
June	122.6	110.5	139.4	110.2	126.4	121.1

B. WHOLESALE PRICES AND PRICE INDEXES.**§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.**

Index Numbers, p. 414.—Index numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are shown below for the year 1959-60 and for the months January to June, 1960.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS.*(Base of each Group: Average, 3 years ended June, 1939 = 100.)*

Month.	Basic Materials.							Foodstuffs and Tobacco. (b)	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.		Goods principally Imported. (a)	Goods principally Home Produced. (b)	Total All Groups. (b)
1959-60	395	225	403	331	379	431	347	348	281	375	348
1960—											
Jan. . .	399	223	411	333	375	433	348	344	282	372	346
Feb. . .	402	223	394	333	395	433	349	343	283	372	346
Mar. . .	403	224	395	333	387	438	351	347	283	376	349
Apr. . .	403	224	405	332	378	439	351	359	283	386	355
May. . .	403	224	399	331	353	439	349	367	283	390	359
June. .	403	225	400	331	342	439	349	387	281	406	369

(a) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in prices of all imports. (b) The indexes for "Foodstuffs and Tobacco", "Goods Principally Home Produced" and "Total All Groups" have been reconstructed as from the base period by excluding potatoes and onions.

D. WAGES.

§ 2. Rates of Wage and Hours of Labour.

Weekly Rates of Wage, pp. 419-423.—The following table shows for each State and Australia the weighted average minimum weekly rates of wage payable, and the index numbers based thereon, for adult males and for adult females, at 31st March and 30th June, 1960.

WEEKLY WAGE RATES: ADULT MALES AND FEMALES.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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ADULT MALES—RATES OF WAGE.

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
31st March, 1960 ..	353	1	348	9	338	6	340	4	343	11	346	9
30th June, 1960 ..	354	8	348	11	342	6	340	8	349	1	348	2

ADULT MALES—INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954=100.)

31st March, 1960 ..	125.0	123.5	119.9	120.5	121.8	122.8	123.2
30th June, 1960 ..	125.6	123.5	121.3	120.6	123.6	123.3	123.8

ADULT FEMALES—RATES OF WAGE.

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
31st March, 1960 ..	253	1	245	8	231	0	240	9	239	8	234	2
30th June, 1960 ..	254	1	245	9	233	11	241	11	243	11	234	7

ADULT FEMALES—INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954=100.)

31st March, 1960 ..	127.1	123.4	116.0	120.9	120.4	117.6	123.7
30th June, 1960 ..	127.6	123.4	117.5	121.5	122.5	117.8	124.2

§ 4. Basic Wages in Australia.

Basic Wage Inquiry, 1960.—On 16th February, 1960, the Commonwealth Conciliation and Arbitration Commission, constituted in Presidential Session by Kirby, C.J. (President), Ashburner and Moore J.J. (Deputy Presidents), commenced hearing an application by respondent unions for variation of the Metal Trades Award, firstly, by increasing the amounts of basic wage prescribed therein to the figure each would have reached had the quarterly adjustment system based on the "C" Series retail price index numbers been retained, plus a further amount of 17s., representing the unions' minimum estimate of the increase in productivity which had occurred since the automatic adjustment system was abolished, and secondly, by restoring the system of automatic quarterly adjustments.

In the judgment delivered on 12th April, 1960, the Commission unanimously refused the unions' application. Some very brief extracts from the reasons for judgment are given in the following paragraphs:—

Application for Restoration of Quarterly Adjustments.—The Commission stated "We must decide the question of automatic quarterly adjustments in the light of existing situations and practices The Commission is considering a situation in which in practice the basic wage is each year re-assessed. The alternatives which emerge from the submissions in these proceedings are either the fixation of a basic wage for an undefined period, the money amounts of the wage being automatically adjustable by movements in a price index, or the fixation of a basic wage each year. In our view, bearing in mind the interest of employees, employers and the public generally, the second alternative is preferable, and the Commission should continue to fix that basic wage which it considers to be just and reasonable knowing that the amount which it fixes will be the basic wage for the ensuing twelve months and will then be reviewed".

Application to Increase the Basic Wage.—The Commission referred to the somewhat unusual circumstances in which an increase in the basic wage was being considered and said “Thus when the Commission as now constituted faces its present task of deciding whether the basic wage should be again increased it has to do so in the setting that less than a year ago the basic wage was increased by 15s. and margins generally were increased by an amount making them 28 per cent. greater than 1954 margins. That has been the general result of the application of the 1959 Metal Trades decision and it is that result with which this Commission is now concerned.”

“We accept the submission made by the private employers and by the Commonwealth Government that we should not award an increase in the basic wage, bearing in mind that employees under federal awards have in the past twelve months received substantial increases in both basic and secondary wages. It is our view that at the present time, before the effects of these previous wage increases have been reflected in the economy, we cannot find that its capacity is such that a further basic wage increase can be awarded.

We consider that it would be unsafe and perhaps dangerous to increase the basic wage at this point of time. We have formed this opinion with a full sense of the obligation which this Commission has to fix the basic wage from time to time at the highest amount that the economy can sustain so that the wage and salary earner may obtain his proper share of goods and services. On the other hand we are mindful of the danger to the whole community, including the wage and salary earner, of the basic wage being fixed at an amount which might increase inflation and upset the stability of the economy.”

As a result, there was no change in the basic wage rates of the Commonwealth Conciliation and Arbitration Commission which had been payable from the beginning of the first pay period commencing on or after 11th June, 1959. The rates payable for adult males in the capital city of each State are as follows:—Sydney, £14 3s.; Melbourne, £13 15s.; Brisbane, £12 18s.; Adelaide, £13 11s.; Perth, £13 16s.; Hobart, £14 2s.; Six Capital Cities (weighted average), £13 16s.

State Basic Wage Rates, p. 445.—The table below shows the “basic” weekly wage rates of State industrial tribunals, operative in May and August, 1960.

STATE BASIC WAGE—WEEKLY RATES.

State.	May, 1960.			August, 1960.		
	Date of Operation.	Males.	Females.	Date of Operation.	Males.	Females.
	(a)			(a)		
		s. d.	s. d.		s. d.	s. d.
New South Wales—						
Metropolitan and Country, excluding Broken Hill ..	May, 1960	285 0	213 6	Aug., 1960	288 0	216 0
Broken Hill ..	May, 1960	283 0	212 0	Aug., 1960	286 0	214 6
Victoria(b) ..	(c)	275 0	206 0	(c)	275 0	206 0
Queensland—						
Southern Division (Eastern District), including Brisbane	2.5.60	271 0	186 0	1.8.60	273 0	188 0
Southern Division (Western District) ..	2.5.60	281 6	191 3	1.8.60	283 6	193 3
Mackay Division ..	2.5.60	280 0	190 6	1.8.60	282 0	192 6
Northern Division (Eastern District) ..	2.5.60	281 6	191 3	1.8.60	283 6	193 3
Northern Division (Western District) ..	2.5.60	303 6	202 3	1.8.60	305 6	204 3
South Australia(d) ..	15.6.59	271 0	203 0	15.6.59	271 0	203 0
Western Australia—						
Metropolitan Area ..	2.5.60	286 4	214 9	25.7.60	292 3	219 2
South-West Land Division ..	2.5.60	283 1	212 4	25.7.60	289 2	216 11
Goldfields and other areas ..	2.5.60	278 10	209 2	25.7.60	285 11	214 5
Tasmania(b) ..	(e)	282 0	211 6	(e)	282 0	211 6

(a) Where dates are not quoted wage rates operate from the beginning of the first pay-period commencing in the month shown. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards. (c) During June and July, 1959, Wages Boards varied determinations by adopting the Commonwealth basic wage rate. (d) The “living wage” declared for the metropolitan area is also adopted for country areas, except at Whyalla, where a loading of 5s. a week is generally payable. (e) Most Wages Boards adopted the Commonwealth basic wage rate from July, 1959.

E. EMPLOYMENT AND UNEMPLOYMENT.

§ 1. Employment.

Wage and Salary Earners in Civilian Employment, pp. 452-5.—The following are particulars of wage and salary earners in civilian employment, excluding rural wage earners, female private domestics and defence forces, for the month of June, 1960.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, JUNE, 1960.

(Excluding Rural Wage Earners, Female Private Domestic and Defence Forces.)
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(a)
Males	845.1	620.4	290.6	196.8	141.7	69.3	2,183.2
Females	339.6	266.3	101.8	69.9	49.1	24.2	857.3
Persons	1,184.7	886.7	392.4	266.7	190.8	93.5	3,040.5

Particulars.	Government. (b)	Private Employers.	Mining and Quarrying.	Manufacturing, etc. (c)	Transport and Communication.	Retail Trade.	Other Commerce and Finance.
Males	633.3	1,549.9	49.3	905.7	312.0	137.3	231.1
Females	150.2	707.1	1.1	276.2	40.9	133.1	101.5
Persons	783.5	2,257.0	50.4	1,181.9	352.9	270.4	332.6

(a) Includes the Northern Territory and Australian Capital Territory. (b) Includes all employees of Government authorities (Commonwealth, State, Local and semi-Government) on services such as railways, tramways, banks, post offices, air transport, education, broadcasting, television, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees, within Australia. (c) Subject to revision. See note (a), p. 454.

Government Employees, p. 456.—The number of Government employees in Australia (including employees of semi-Government authorities) in June, 1960, was as follows:—Commonwealth Government—males, 174,106; females, 47,548; persons, 221,654; State Government authorities—males, 386,262; females, 95,295; persons, 481,557; Local Government authorities—males, 72,959; females, 7,332; persons, 80,291; Total—males, 633,326; females, 150,175; persons, 783,501.

CHAPTER XII.—TRADE.

NOTE.—Values are expressed in £A. f.o.b., port of shipment.

§ 7. Total Oversea Trade.

Summary of Movements, p. 481.—The following are preliminary figures of the total overseas trade of Australia during the year 1959–60:—Merchandise—Exports, £925,410,359; Imports, £924,735,212; Commodity balance, + £675,147; Bullion and Specie—Exports, £11,723,797; Imports, £2,563,329; Balance, + £9,160,468; Total balance, + £9,835,615.

§ 8. Direction of Oversea Trade.

According to Countries, p. 482.—The following table shows particulars of the values of total imports and total exports of Australia, including bullion and specie, according to countries of origin or consignment, for the year 1959–60.

TOTAL OVERSEA TRADE, AUSTRALIA: COUNTRIES OF ORIGIN OR
CONSIGNMENT, 1959-60.(a)

(£'000.)

Country.	Imports.	Exports.	Country.	Imports.	Exports.
United Kingdom	330,297	245,691	Belgium-Luxemburg	8,469	24,309
Australian Territories—			China (Mainland)	4,419	16,118
New Guinea	7,244	11,311	Czechoslovakia	2,574	8,946
Papua	1,491	5,204	France	13,734	60,333
Borneo (British)	15,828	1,350	Germany, Federal Republic	53,837	37,806
Canada	29,741	13,906	Indonesia	29,438	3,221
Ceylon	11,157	7,711	Iran	12,741	3,620
Fiji	1,389	5,114	Italy	41,533	46,533
Hong Kong	5,162	9,274	Japan	41,533	134,741
India	18,180	16,185	Mexico	2,072	3,209
Malaya, Federation of	17,817	12,675	Netherlands	18,679	5,596
New Zealand	15,821	54,140	Norway	3,965	558
Pakistan	3,380	5,027	Poland	253	10,858
Singapore	1,548	10,949	Sweden	14,286	2,146
South Africa, Union of	7,218	8,157	Switzerland	11,954	1,947
Other Commonwealth Countries	18,843	21,722	United States of America	150,008	75,620
Total, Commonwealth Countries	485,116	428,416	Other Foreign Countries(b)	21,613	68,854
Arabian States	36,486	2,599	Total, Foreign Countries	442,183	508,718
Austria	3,111	1,704	Total, All Countries	927,299	937,134

(a) Preliminary.

(b) Includes shipments made "for orders" and imports of unknown origin.

According to Monetary Groups, p. 484.—The following table shows the trade of Australia during 1959–60 according to monetary groups.

OVERSEA TRADE OF AUSTRALIA ACCORDING TO MONETARY GROUPS(a),
1959-60.(b)

Monetary Group.	£'000.	Monetary Group.	£'000.
STERLING.		OTHER NON-STERLING.	
Imports—		Imports—	
From—United Kingdom ..	330,297	From—Countries of the E.E.C.(c)	109,491
Other Sterling Area Countries ..	155,506	Countries of the O.E.E.C.(c)	39,286
Total ..	485,803	Other Countries ..	108,518
Exports—		Total ..	257,295
To—United Kingdom ..	245,691	Exports—	
Other Sterling Area Countries ..	177,937	To—Countries of the E.E.C. (c) ..	178,503
Total ..	423,628	Countries of the O.E.E.C. (c)	14,304
Excess of Exports (+) or Imports (–)	–62,175	Other Countries ..	221,716
		Total ..	414,523
DOLLAR.		Excess of Exports (+) or Imports (–)	+157,228
Imports—		ALL MONETARY GROUPS.	
From—United States of America ..	150,008	Total Imports ..	927,299
Canada ..	29,741	Total Exports ..	937,134
Other Dollar Area Countries ..	4,452	Excess of Exports (+) or imports (–)	+9,835
Total ..	184,201		
Exports—			
To—United States of America ..	75,620		
Canada ..	13,906		
Other Dollar Area Countries ..	9,457		
Total ..	98,983		
Excess of Exports (+) or Imports (–)	–85,218		

(a) For a list of the countries in each monetary group, see page 483.

(b) Preliminary.

(c) Including dependencies.

§ 12. Classified Summary of Australian Oversea Trade.

Imports and Exports in Statistical Classes, p. 493.—The following table shows the values of total imports and total exports in statistical classes for the year 1959–60:—

TOTAL OVERSEA TRADE, AUSTRALIA: CLASSES, 1959-60.(a)

(£'000.)

Class.	Imports.	Exports.	Class.	Imports.	Exports.
I. Animal foodstuffs, etc...	10,130	143,758	XIII. Rubber and leather, etc.	25,462	5,405
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	27,478	164,541	XIV. Wood and wicker, etc.	20,769	3,880
III. Alcoholic liquors, etc. ..	3,743	2,169	XV. Earthenware, etc. ..	16,656	874
IV. Tobacco, etc. ..	14,178	354	XVI. Paper and stationery ..	55,004	3,205
V. Live animals ..	636	2,036	XVII. Jewellery, etc. ..	10,832	1,512
VI. Animal substances, etc...	5,281	419,200	XVIII. Optical, surgical and scientific instruments	15,613	2,356
VII. Vegetable substances, etc.	20,235	1,130	XIX. Chemicals, medicinal products, fertilizers, etc. ..	47,801	7,644
VIII. Apparel, textiles, etc. ..	111,073	3,079	XX. Miscellaneous ..	63,225	22,857
IX. Oils, fats and waxes ..	106,927	24,331	XXI. Gold and silver; bronze specie ..	2,563	11,724
X. Pigments, paints and varnishes ..	6,574	1,089	Total ..	927,299	937,134
XI. Rocks, minerals, etc. ..	7,770	28,846			
XII. Metals, metal manufactures and machinery ..	355,349	87,144			

(a) Preliminary.

Exports of Principal Articles of Australian Produce, p. 495.—The following table shows the quantities and values of the principal articles of Australian produce exported during 1959-60:—

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE, 1959-60.(a)

Article.	Unit of Quantity.	Quantity.	Value.(£'000.)
Arms, ammunition, military, naval and air force stores .. .. .	..	..	1,256
Barley	ton	574,569	11,550
Butter .. .. .	..	85,928	28,646
Cheese .. .. .	..	18,224	3,770
Chemicals, drugs, fertilizers .. .. .	..	..	7,644
Flour (wheaten), plain white	ton (b)	567,368	15,145
Fruit—			
Dried	ton	59,350	9,066
Fresh, including frozen	'000 bus.	6,879	9,294
Preserved in airtight containers	ton	99,211	12,294
Gold	'000 fine oz.	653,097	10,215
Hides and skin .. .. .	..	..	31,425
Lead, pig	ton	121,421	10,878
Machines and machinery (except dynamo electrical) .. .. .	..	..	8,673
Meats preserved by cold process—			
Beef and veal	ton	211,625	55,426
Lamb .. .. .	..	29,635	4,390
Mutton .. .. .	..	35,881	4,719
Pork .. .. .	..	395	150
Meats, tinned .. .. .	..	53,820	13,341
Milk and cream	'000 lb.	144,931	10,964
Ores and concentrates	ton	754,355	22,245
Sugar (from cane) .. .. .	..	701,315	27,670
Wheat .. .. .	..	2,566,201	61,646
Wool (c)	'000 lb.	1,524,148	386,296
All other articles .. .. .	..	..	173,236
Total Exports (Australian Produce) .. .. .	..	..	919,939

(a) Preliminary.

(b) 2,000 lb.

(c) Quantity in terms of greasy wool.

§ 16. Australian Index of Export Prices.

Monthly Index (Fixed Weights), p. 502.—The following are the export price index numbers for the year 1959-60 and for the months February to June, 1960:—

EXPORT PRICE INDEXES: AUSTRALIA.

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES, AND ALL GROUPS COMBINED.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Month.	Wool.	Wheat.	Butter.	Metals. (a)	Meats. (b)	Sugar.	Dried Fruits. (c)	Tallow.	Hides. (d)	Gold.	All Groups.	
											Excluding Gold.	Including Gold.
1959-60 ..	425	333	315	428	(e)	452	(f)345	302	365	178	(f)393	(f)378
1960—												
February ..	415	331	310	427	(e)	448	(f)330	293	346	178	(f)389	(f)374
March	415	331	276	432	(e)	458	(f)332	279	345	178	(f)385	(f)371
April	430	333	248	438	(e)	454	(f)335	283	322	178	(f)391	(f)376
May	415	332	248	437	(e)	461	(f)324	286	316	178	(f)382	(f)368
June	415	337	255	426	(e)	453	(f)309	300	303	178	(f)384	(f)369

(a) Silver, copper, tin, zinc, lead. (b) Beef, lamb, mutton, pork. Guaranteed minimum prices are used when operative. (c) Sultanas, raisins, currants. (d) Cattle hides, calfskins. (e) Actual price realized not yet fully known; provisional series are included in "All Groups" Indexes which are subject to revision. (f) Preliminary.

§ 21. The Australian Balance of Payments.

The tables in this section show revised balance of payments estimates for the years 1957-58, 1958-59 and preliminary estimates for 1959-60. In some cases the form of presentation is slightly different from that in Chapter XIII.—Trade. Further details of balance of payments estimates will be found in *The Australian Balance of Payments, 1928-29 to 1951-52* and in the mimeographed publication *The Australian Balance of Payments, 1955-56 to 1959-60*.

Current Account, p. 508.—Revised estimates of the balance of payments on current account for the years 1957-58, 1958-59 and preliminary estimates for 1959-60 are shown in the following table:—

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA. (£A. million.)

Particulars.	1957-58.	1958-59.	1959-60.(a)
CREDITS.			
1. Exports f.o.b.(b)	810.4	810.3	936.1
2. Gold Production	16.3	16.5	16.4
3. Transportation—			
Oversea ships' expenditure	64.2	70.0	81.6
Other	7.3	8.2	8.0
	71.5	78.2	89.6
4. Travel	7.5	8.0	9.5
5. Income from Investment—			
Undistributed Income	4.3	2.4	2.0
Other	30.2	22.1	22.0
	34.5	24.5	24.0
6. Government	19.0	19.3	25.8
7. Miscellaneous	7.7	8.7	9.3
8. Donations, etc.—			
Immigrants' Funds, etc.	17.5	19.6	17.4
Other	7.3	7.4	11.7
	24.8	27.0	29.1
<i>Total Credits</i>	<i>991.7</i>	<i>992.5</i>	<i>1,139.8</i>
DEBITS.			
9. Imports f.o.b.(b)	790.6	796.3	945.6
10. Transportation—			
Freight	119.0	114.0	126.0
Other (incl. Marine Insurance) (c)	15.2	15.5	17.2
	134.2	129.5	143.2
11. Travel	27.7	28.6	35.0
12. Income from Investment—			
Public Authority Interest	22.8	25.1	27.0
Direct Investment	48.9	48.3	48.5
Undistributed Income	39.7	58.7	60.0
Other	6.3	11.6	9.5
	117.7	143.7	145.0
13. Government—			
Defence	10.2	12.6	18.3
Papua and New Guinea	12.5	13.5	14.0
Other	13.7	14.3	16.5
	36.4	40.4	48.8
14. Miscellaneous	28.2	32.3	36.0
15. Donations, etc.—			
Personal	16.8	15.2	14.7
Colombo Plan, etc.	4.8	4.8	4.0
Other	8.9	8.8	10.1
	30.5	28.8	28.8
<i>Total Debits</i>	<i>1,165.3</i>	<i>1,199.6</i>	<i>1,382.4</i>
Balance on Current Account	—173.6	—207.1	—242.6

(a) Preliminary. (b) The amounts shown for imports and exports exclude gold and represent the recorded figures adjusted for balance of payments purposes. (c) Total marine insurance premiums on imports (whether payable in Australia or overseas) were £4.1 million in 1957-58, £4.1 million in 1958-59 and £4.9 million in 1959-60.

Capital Account, p. 510.—The following table shows revised estimates of Australia's balance of payments on capital account for the years 1957-58, 1958-59 and preliminary estimates for 1959-60.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA.

(£A. million).

Particulars.	1957-58.	1958-59.	1959-60.(a)
CHANGES IN ASSETS.			
1. International Reserves	-41.1	- 9.0	- 4.4
2. I.M.F., I.B.R.D., I.F.C. .. ..	..	44.6	50.5
3. Other Official	1.3	- 6.2	-11.2
4. Marketing Authorities	- 2.0	6.0	2.3
5. Portfolio Investment	- 2.2	- 2.8	- 4.3
6. Direct Investment—			
Branches—Unremitted Profits ..	0.7	1.0	1.0
—Other	1.9	4.1	(b)
Subsidiaries—Undistributed Profits	3.6	1.4	1.0
—Other	1.5	3.7	(b)
	7.7	10.2	2.0(c)
<i>Total</i>	-36.3	42.8	34.9
CHANGES IN LIABILITIES.			
7. Official Loans—			
I.B.R.D.	13.2	2.2	- 7.2
Other Commonwealth	0.7	11.3	36.6
States	2.1	22.2	5.9
Other	- 3.6	- 0.2	- 0.2
Discounts, etc. .. ..	..	- 0.7	- 0.5
	12.4	34.8	34.6
8. I.M.F. and I.B.R.D.	- 3.1	24.0	35.7
9. Foreign Banks	- 0.2	1.0	- 0.9
10. Portfolio Investment—			
Government Securities.. ..	- 2.1	- 4.2	(b)
Companies, etc.	7.9	19.4	(b)
	5.8	15.2	(b)
11. Direct Investment—			
Branches—Unremitted Profits ..	2.2	7.4	8.0
—Other	7.0	12.9	(b)
Subsidiaries—Undistributed Profits	37.5	51.3	52.0
—Other	43.4	27.1	(b)
	90.1	98.7	60.0c
12. Life Assurance Companies	- 4.8	- 5.0	- 2.9
13. Balancing Item	37.1	81.2	..
	..	..	151.0d
<i>Total</i>	137.3	249.9	277.5
Balance on Capital Account ..	173.6	207.1	242.6

(a) Preliminary.
items footnoted b.

(b) Information not yet available, included in balancing item.
(d) Includes items footnoted b.

(c) Excludes

Balance of Payments on Current Account—Monetary Groups, p. 511.—Revised estimates of Australia's regional balance of payments are shown in the following table for the years 1957–58 and 1958–59, together with preliminary estimates for 1959–60.

**BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA
BY MONETARY GROUP.(a)**

(£A. million.)

	1957–58.	1958–59.	1959–60.(b)
Exports f.o.b.—			
Sterling—			
United Kingdom	221.2	261.5	243.2
Other	157.6	149.7	175.7
Non-Sterling—			
U.S.A. and Canada	59.4	77.0	91.7
European Economic Community ..	189.0	145.4	177.8
European Free Trade Association(c)	11.6	9.1	8.6
Soviet Area	33.4	31.1	52.1
Other	138.2	136.5	187.0
Total	810.4	810.3	936.1
Imports f.o.b.—			
Sterling—			
United Kingdom	— 324.6	— 309.6	— 331.5
Other	— 124.6	— 131.7	— 153.1
Non-Sterling—			
U.S.A. and Canada	— 129.4	— 131.7	— 200.1
European Economic Community ..	— 82.2	— 86.4	— 109.2
European Free Trade Association(c)	— 32.5	— 31.2	— 36.1
Soviet Area	— 7.7	— 7.5	— 9.2
Other	— 89.6	— 98.2	— 106.4
Total	— 790.6	— 796.3	— 945.6
Invisibles (Net)—			
Sterling—			
United Kingdom	— 58.9	— 70.7	— 67.8
Other	— 40.3	— 38.6	— 44.9
Non-Sterling—			
U.S.A. and Canada	— 66.7	— 88.0	— 100.9
European Economic Community ..	— 15.5	— 15.0	— 15.4
European Free Trade Association(c)	— 1.6	— 2.9	— 4.5
Soviet Area	— 0.6	— 0.6	— 0.4
Other	— 22.3	— 20.4	— 16.9
International Agencies	— 7.0	— 7.2	— 7.7
Gold Production	16.3	16.5	16.4
Total	— 193.4	— 221.1	— 233.1
Balance on Current Account—			
Sterling—			
United Kingdom	— 162.3	— 118.8	— 156.1
Other	— 7.3	— 20.6	— 22.3
Non-Sterling—			
U.S.A. and Canada	— 136.7	— 142.7	— 209.3
European Economic Community ..	91.3	44.0	53.2
European Free Trade Association(c)	— 19.3	— 19.2	— 23.0
Soviet Area	25.1	23.0	42.5
Other	26.3	17.9	63.7
International Agencies	— 7.0	— 7.2	— 7.7
Gold Production	16.3	16.5	16.4
Total	— 173.6	— 207.1	— 242.6

(a) For a list of the countries included in each monetary group see page 483.

(b) Preliminary.

(c) Excludes United Kingdom.

CHAPTER XIV.—TRANSPORT AND COMMUNICATION.

PART I.—TRANSPORT.

E. MOTOR VEHICLES.

Motor Vehicle Registrations, p. 546.—Motor vehicles registered at 30th June, 1960, and new motor vehicles registered during 1959–60 were as follows:—

MOTOR VEHICLES: REGISTRATIONS, 1959-60.

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1960. (a)				Number of New Motor Vehicles Registered, 1959-60. (a)			
	Motor Cars. (b)	Commercial Vehicles. (c)	Motor Cycles.	Total.	Motor Cars. (b)	Commercial Vehicles. (c)	Motor Cycles.	Total.
New South Wales ..	628,072	314,832	28,773	971,677	69,353	42,077	2,211	113,641
Victoria (d) ..	652,289	172,535	22,006	846,830	74,036	16,334	2,220	92,590
Queensland ..	241,613	147,184	17,946	406,743	25,664	11,859	1,548	39,071
South Australia ..	192,853	67,693	15,934	276,480	20,847	5,588	1,561	27,996
Western Australia ..	127,863	70,325	13,609	211,797	13,692	5,695	1,949	21,336
Tasmania ..	64,751	26,083	3,123	93,957	6,527	2,114	97	8,738
Northern Territory ..	4,324	4,651	717	9,692	482	390	25	897
Aust. Capital Territory ..	12,413	3,757	382	16,552	1,820	497	81	2,398
Total ..	1,924,178	807,060	102,490	2,833,728	212,421	84,554	9,692	306,667

(a) Excludes Defence Service vehicles, trailers, road tractors, etc., and dealer's plates. (b) Includes taxis, hire cars and station wagons. (c) Includes utilities, panel vans, lorries and omnibuses. (d) Registration in Victoria is according to purpose of use and not type of vehicle; consequently, motor car registrations are overstated by the inclusion of commercial vehicles registered for private use.

PART II.—COMMUNICATION.

A. POSTS; TELEGRAPHS; TELEPHONES; CABLE AND RADIO COMMUNICATION.

§ 5. Cable and Radio Communication.

Radio-communication Stations Authorized, p. 570.—The following radio-communication stations were authorized in Australia and the External Territories at 30th June, 1960. The figures in parentheses refer to the External Territories and are included in the totals preceding them:—Transmitting and receiving stations—Fixed—aeronautical, 113 (25); services with other countries, 88 (12); outpost, 1,628 (405); other, 863 (79); Land—aeronautical, 97 (16); land mobile services, 2,740 (18); harbour mobile services, 78 (—); coast, 96 (14); special experimental, 173 (8); Mobile—aeronautical, 544 (36); land mobile services, 24,260 (73); harbour mobile services, 398 (18); outpost, 1,013 (50); ship, 2,442 (131); Amateur, 3,987 (72). In addition, there were 398 (—) fixed and 55 (—) mobile stations for the purpose of receiving only.

B. BROADCASTING AND TELEVISION.

§ 4. Licences, etc.

Broadcast Listeners' and Television Viewers' Licences, p. 578.—Broadcast listeners' licences in force at 30th June, 1960, were as follows:—New South Wales, 832,659; Victoria 606,587; Queensland, 344,198; South Australia, 249,148; Western Australia, 171,693; Tasmania, 78,900; Australia, 2,283,185. Figures for the Northern Territory and the Australian Capital Territory have been included with those for South Australia and New South Wales respectively.

Television viewers' licences in force at 30th June, 1960, were as follows:—New South Wales, 409,334; Victoria, 353,091; Queensland, 67,337; South Australia, 84,967; Western Australia, 35,604; Tasmania, 4,662; Australia, 954,995.

CHAPTER XVIII.—WELFARE SERVICES.

A. COMMONWEALTH SOCIAL SERVICE BENEFITS.

§ 2. Commonwealth Expenditure on Social and Health Services.

States, p. 686.—The following table shows particulars of payments of social and health services in each State during 1959–60.

COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES,
1959–60.

(£'000.)

Service.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Over-seas.	Total.
Social Benefits—										
Age and Invalid Pensions	60,438	35,935	22,386	13,183	9,916	4,746	89	201	111	147,005
Child Endowment	22,325	16,963	9,650	5,897	4,860	2,359	179	281	18	62,532
Commonwealth Rehabilitation Service	188	201	94	92	85	21	..	..	..	681
Funeral Benefits	147	91	48	31	24	11	..	1	..	353
Maternity Allowances	1,277	1,008	575	337	275	143	12	21	4	3,652
Sickness Benefits	940	546	339	172	164	68	2	7	..	2,238
Special Benefits(a)	139	202	89	36	24	19	..	1	..	510
Unemployment Benefits	1,601	936	1,027	249	564	121	1	6	..	4,505
Widows' Pensions	4,802	2,916	1,999	1,045	914	416	9	24	12	12,137
National Health Services—										
Hospital Benefits	8,151	4,212	2,393	1,562	1,676	534	44	27	..	18,599
Medical Benefits	3,950	2,204	1,053	991	846	248	..	..	..	9,292
Medical Benefits for Pensioners	1,868	978	522	362	275	100	..	8	..	4,113
Nutrition of Children	1,283	908	479	274	228	153	11	23	..	3,359
Pharmaceutical Benefits	8,298	6,091	2,715	1,710	1,337	567	.. (b)	43	..	20,761
Pharmaceutical Benefits for Pensioners	1,577	789	540	331	252	85	..	..	..	3,574
Tuberculosis Campaign—										
Allowances	358	212	202	124	70	60	..	..	..	1,026
Maintenance payments	1,375	1,096	546	623	512	147	..	38	..	4,337
Miscellaneous(c)	41	55	102	11	17	22	15 (d)	426	..	689
Total	118,758	75,343	44,759	27,030	22,039	9,820	362	1,107	145	299,363

(a) Includes special benefits to migrants in reception and training centres. (b) Includes Bush Nursing Centres throughout Australia. (c) Includes cost of district laboratory services, supply of prophylactic materials and biological products and hearing aids for children. (d) Includes £241,364 for the production of poliomyelitis vaccine and £80,000 for running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories, Parkville, Victoria and £53,616 for Home Nursing Service throughout Australia.

§ 3. Age and Invalid Pensions, § 4. Child Endowment, § 7. Maternity Allowances, § 8. Unemployment, Sickness and Special Benefits, § 9. Widows' Pensions.

General, pp. 687-700.—The following table gives a summary of age, invalid and widows' pensions, maternity allowances, child endowment, and unemployment, sickness and special benefits for the year 1959-60:—

SOCIAL SERVICES: SUMMARY, 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age Pensioners at end of year—									
Males	67,454	40,027	27,913	15,384	11,952	5,060	178	217	168,185
Females	149,342	96,071	54,283	34,095	24,623	10,775	183	465	369,837
Persons	216,796	136,098	82,196	49,479	36,575	15,835	361	682	538,022
Invalid Pensioners at end of year—									
Males	18,335	9,447	6,312	3,450	3,458	1,693	84	55	42,834
Females	17,306	8,099	5,293	2,937	2,694	1,513	67	73	37,982
Persons	35,641	17,546	11,605	6,387	6,152	3,206	151	128	80,816
Maternity Allowances—									
Claims paid during year	81,241	62,853	35,515	21,443	17,012	8,985	767	1,311	229,389 (a)
Child Endowment at end of year—									
Family claims in force	550,258	403,934	211,837	139,985	107,918	51,463	3,575	7,624	1,476,835 (a)
Endowed children ..	1,168,808	879,379	494,272	309,327	250,449	121,317	10,845	17,242	3,252,144 (a)
Widows' Pensions at end of year—									
Pensions in force ..	20,602	12,547	8,340	4,439	4,039	1,773	68	114	51,922
Class "A" pensions in force (b) ..	9,310	5,281	4,151	1,926	1,556	924	33	59	23,240
Unemployment, Sickness and Special Benefits—									
Persons on benefit at end of year—									
Unemployment Benefit—									
Males	3,491	2,507	2,311	779	1,931	371	2	7	11,399
Females	2,114	1,169	753	601	362	129	1	13	5,142
Persons	5,605	3,676	3,064	1,380	2,293	500	3	20	16,541
Sickness Benefit—									
Males	2,581	1,506	997	451	554	191	4	21	6,305
Females	1,001	576	337	152	137	54	1	6	2,264
Persons	3,582	2,082	1,334	603	691	245	5	27	8,569
Special Benefit—									
Ordinary—									
Males	184	124	98	50	61	12	..	..	529
Females	511	630	277	116	93	100	..	..	1,729
Persons	695	754	375	166	154	112	..	2	2,258
Migrant—									
Persons	9	39	..	5	..	..	..	..	53
Admissions to Benefit—									
Unemployment Benefit—									
Males	24,292	12,676	27,904	5,205	10,605	2,472	35	139	83,328
Females	9,453	4,959	5,328	2,454	1,884	708	24	86	24,896
Persons	33,745	17,635	33,232	7,659	12,489	3,180	59	225	108,224
Sickness Benefit—									
Males	16,783	9,997	8,030	4,041	4,215	1,518	62	142	44,788
Females	6,134	3,675	2,156	1,002	988	365	11	40	14,371
Persons	22,917	13,672	10,186	5,043	5,203	1,883	73	182	59,159
Special Benefit—									
Ordinary—									
Males	616	245	711	146	63	57	3	5	1,846
Females	601	896	180	82	75	73	..	10	1,917
Persons	1,217	1,141	891	228	138	130	3	15	3,763
Migrant—									
Persons	380	9,998	41	408	..	..	..	..	10,827
Benefits paid—									
Unemployment ..	£ 1,600,995	935,501	1,026,701	249,078	564,491	120,958	859	5,921	4,504,504
Sickness	£ 940,194	546,165	339,379	171,942	163,528	67,677	1,501	7,895	2,238,281
Special (c)	£ 138,481	202,086	88,798	36,422	23,898	19,606	174	697	510,162
Total (c)	£ 2,679,670	1,683,752	1,454,878	457,442	751,917	208,241	2,534	14,513	7,252,947

(a) Includes claims paid overseas.

(b) Pensions paid to widows who maintain at least one child under 16 years of age.

(c) Includes payments to migrants.

CHAPTER XX.—PRIVATE FINANCE:

A. CURRENCY.

§ 2. Coinage.

Issues of Australian Coins, p. 753.—The net issues of Australian coins to 30th June, 1960, were:—silver, £39,371,000; bronze, £3,201,000; total, £42,572,000.

§ 3. Notes.

The Australian Note Issue, p. 756.—The average value of notes in circulation for the year 1959–60 was £416,499,000. This amount was distributed in denominations as follows:—10s., £11,919,000; £1, £69,638,000; £5, £186,144,000; £10, £146,393,000; £20, £3,000; £50, £34,000; £100, £38,000; and £1,000, £2,330,000. The amount held by the banks was £53,084,000 and by the public £363,415,000.

B. BANKING.

§ 1. Cheque-Paying Banks.

Reserve Bank, p. 763.—The average liabilities of the Central Banking Business (including Note Issue Department) of the Reserve Bank for the year ended June, 1960, amounted to £985,355,000. Capital and Reserve Funds amounted to £25,029,000; Notes on Issue to £413,592,000; Statutory Reserve Deposit Accounts of Trading Banks to £280,786,000; Other Deposits of Trading Banks to £19,580,000; Other Liabilities to £246,368,000.

Particulars of the average assets were as follows:—Gold and Balances held abroad, £442,164,000; Australian Notes and Coin, £3,566,000; Cheques and Bills of other Banks, £3,084,000; Government and Other Securities (including Treasury Bills), £475,189,000; Bills Receivable and Remittances in Transit, £4,014,000; and Other Assets, £57,338,000.

Commonwealth Trading Bank, p. 768.—The average liabilities in Australia of the Commonwealth Trading Bank for the year ended June, 1960, were £269,640,000. Of this amount, fixed Deposits amounted to £62,526,000 and current Deposits (including current Deposits bearing interest £10,856,000) to £191,911,000; Balances due to other Banks to £743,000; Other Liabilities to £14,460,000.

The average assets in Australia, £267,843,000; included Cash and Cash Balances £10,719,000; Treasury Bills and Seasonal Securities, £3,043,000; Other Commonwealth and State Government Securities, £60,189,000; Loans to Authorized Dealers in the Short Term Money Market, £2,556,000; Statutory Reserve Deposits with Reserve Bank, £41,429,000; Cheques, Bills and Balances with other Banks, £3,606,000; Loans (other than Loans to Authorized Dealers in the Short Term Money Market), Advances and Bills Discounted, £133,735,000; Other Assets, £11,566,000.

Private Trading Banks, p. 769.—Average liabilities in Australia of the Private Trading Banks for the year ended June, 1960, were £1,481,958,000. Fixed Deposits amounted to £281,237,000 and Current Deposits (including Current Deposits bearing interest, £104,317,000) to £1,164,884,000; Balances due to other Banks to £4,804,000; Other Liabilities to £24,008,000.

The average assets in Australia, £1,506,610,000, included Cash and Cash Balances, £57,730,000; Treasury Bills and Seasonal Securities, £24,408,000; Other Commonwealth and State Government Securities, £236,890,000; Loans to Authorized Dealers in the Short Term Money Market, £21,757,000; Statutory Reserve Deposits with Reserve Bank, £238,774,000; Cheques, Bills and Balances with other Banks, £23,196,000; Loans (other than Loans to Authorized Dealers in the Short Term Money Market), Advances and Bills Discounted, £818,308,000; Other Assets, £85,547,000.

Classification of Advances within Australia—Commonwealth Trading Bank and Private Trading Banks, p. 773.—Advances within Australia at the end of December, 1959, dissected by industries were:—Resident Borrowers: Business Advances—Agriculture, Grazing and Dairying, £222,657,000; Manufacturing, £172,694,000; Transport, Storage and Communication, £15,067,000; Finance, £55,915,000; Commerce, £188,562,000; Building and Construction, £26,427,000; Other Business and Services, £64,795,000; Unclassified, £5,040,000; Total Business advances, £751,157,000; Advances to Public Authorities, £16,556,000; Personal advances, £154,624,000; Advances to Non-Profit Organizations, £17,497,000; Total Resident Borrowers, £939,834,000; Total Non-Resident Borrowers, £177,000; Total advances, £940,011,000.

Clearing House Returns, p. 777.—The average weekly bank clearings in each capital city for the year ended June, 1960, were as follows:—Sydney, £167,858,000; Melbourne, £156,625,000; Brisbane, £34,202,000; Adelaide, £30,461,000; Perth, £19,579,000; Hobart, £6,062,000; Total £414,787,000.

Debits to Customers' Accounts—All Cheque-paying Banks, p. 777.—The average weekly debits to customers' accounts in each State for the year 1959–60 for all cheque-paying banks (excluding debits to accounts of Australian Governments in capital cities) were as follows:—New South Wales, £296,295,000; Victoria, £264,561,000; Queensland, £79,172,000; South Australia, £53,374,000; Western Australia, £34,852,000; Tasmania, £15,483,000; Northern Territory, £942,000; Australian Capital Territory, £2,678,000; Total, £747,357,000.

§ 2. Savings Banks.

All Savings Banks, p. 780.—The numbers of operative accounts in the several States at end of June, 1960, were:—New South Wales, 3,013,000; Victoria, 2,692,000; Queensland, 1,140,000; South Australia, 931,000; Western Australia, 551,000; Tasmania, 311,000; Northern Territory, 15,000 and Australian Capital Territory, 34,000; Total, 8,687,000. The amounts on deposit in the several States at 30th June, 1960, were:—New South Wales, £541,572,000; Victoria, £499,592,000; Queensland, £182,586,000; South Australia, £165,998,000; Western Australia, £78,623,000; Tasmania, £46,355,000; Northern Territory, £2,582,000 and Australian Capital Territory, £5,396,000; Total, £1,522,704,000. Total excess of deposits over withdrawals during 1959–60 was £91,203,000 and interest added was £40,169,000.

D. INSURANCE.

§ 2. Life Assurance.

Life Assurance, p. 791.—The following is a summary of the life assurance business transacted in Australia during 1959 (figures for 1958 in parentheses) compiled from monthly returns collected from the 30(27) companies registered under the Life Insurance Act 1945–1959, and excluding the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office which operate only within their respective States. Particulars shown are therefore not entirely comparable with those in Chapter XX., which are derived from annual returns and include business of the State Government Offices.

Ordinary Department and Industrial Department, respectively:—New Policies issued in Australia—Number 347,706 (297,674), 189,282 (198,611); Sum Assured, £609,649,000 (£482,263,000), £32,338,000 (£32,710,000); Policies Matured or Otherwise Discontinued in Australia—Number 199,633 (182,083), 273,196 (287,139), Sum Assured, £182,464,000 (£154,221,000), £28,211,000 (£27,304,000). Particulars of annuities are excluded.

Premium receipts of Ordinary and Industrial Departments in Australia in 1959 amounted, respectively, to £100,465,000 (£91,253,000) and £15,412,000 (£15,305,000); Claims, etc., paid amounted to £38,884,000 (£35,112,000) and £10,695,000 (£10,397,000), respectively. Particulars of annuities are included.

CHAPTER XXI.—PUBLIC FINANCE.

A. COMMONWEALTH FINANCE.

Consolidated Revenue Fund, pp. 814 and 825.—The table below shows details of revenue and expenditure for the year 1959–60:—

COMMONWEALTH CONSOLIDATED REVENUE FUND: REVENUE AND EXPENDITURE, 1959–60.

(£'000.)

Revenue.		Expenditure.	
Item.	Amount.	Item.	Amount.
<i>Taxation—</i>		Defence Services (a) ..	146,770
Customs	84,381	War and Repatriation Services	137,478
Excise	252,111	Subsidies and Bounties ..	17,345
Sales Tax	164,185	Departmental	140,266
Income Taxes	671,294	National Welfare Fund—	
Pay-roll Tax	55,162	Expenditure on Social Services	299,363
Estate Duty	13,753		
Other Taxes	8,904	<i>Business Undertakings—</i>	
<i>Total</i>	1,249,790	Postmaster-General's Department	111,610
<i>Business Undertakings—</i>		Broadcasting and Television	
Postmaster-General's Department	121,631	Services	9,983
Broadcasting and Television		Railways	4,749
Services	10,460	<i>Total</i>	126,342
Railways	5,147	Territories	25,936
<i>Total</i>	137,238	<i>Capital Works and Services—</i>	
<i>Territories</i>	4,198	Defence Services	36,066
<i>Other Revenue</i>	47,060	Business Undertakings	44,579
		Other	94,875
		<i>Total</i>	175,520
<i>Grand Total</i>	1,438,286	Payments to or for States ..	321,415
		Loan Consolidation and Investment Reserve	41,382
		Other Expenditure	6,469
		<i>Grand Total</i>	1,438,286

(a) In addition, £11,987,000 was spent from Loan Fund on Defence Services—General Services, Works, Armaments, etc.

C. COMMONWEALTH AND STATE FINANCE.

Revenue and Expenditure, p. 855.—Preliminary information relating to Commonwealth and State revenue and expenditure during 1959–60 is given below.

COMMONWEALTH AND STATE REVENUE AND EXPENDITURE, 1959-60.
(£'000.)

Government of—	Consolidated Revenue Fund.			Loan Fund— Net Expenditure on Works and Services.
	Revenue.	Expenditure.	Surplus (+) or Deficit (—)	
New South Wales	(a)263,537	(a)263,469	+ 68	57,966
Victoria	168,310	167,997	+313	46,219
Queensland	103,103	103,268	—165	22,223
South Australia	76,078	76,389	—311	25,148
Western Australia	64,388	65,794	—1,406	17,696
Tasmania	24,296	25,328	—1,032	13,182
Six States	699,712	702,245	—2,533	182,434
Commonwealth	1,438,286	1,438,286	..	(c) 47,620
Grand Total—Unadjusted	2,137,998	2,140,531	—2,533	230,054
Adjusted(b)	1,856,547	1,859,080	—2,533	230,054

(a) Represents the combined transactions of the Consolidated Revenue Fund and the Business Undertakings—Railways, Tramways and Omnibuses and Sydney Harbour Section of the Maritime Services Board—included in the annual Budget Papers. Adjustments have been made to exclude duplications.
(b) To avoid duplication in aggregating particulars for the Commonwealth and States, the grand totals have been adjusted to exclude State payments to the Commonwealth in respect of pay-roll tax and Commonwealth payments to the States included in State Consolidated Revenue Funds in respect of interest on State debts, special grants, uniform taxation, special financial assistance, grants to universities, tuberculosis, capital expenditure and National Welfare payments. There are other relatively minor payments for which adjustments have not been made and the adjusted figures are therefore still slightly overstated.
(c) Excludes expenditure of £11,987,000 on Defence Services—General Services, Works, Armaments, etc.

D. COMMONWEALTH AND STATE GOVERNMENT SECURITIES.

§ 3. Commonwealth and State Public Debt Outstanding.

Public Debt and Annual Interest Payable, p. 859.—The following table shows details of the Commonwealth and State Government Public Debt and the annual interest payable thereon at 30th June, 1960.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE AND
ANNUAL INTEREST PAYABLE AT 30th JUNE, 1960.

Particulars.	Maturing in—					Total.
	Australia.	London.	New York.	Switzerland.	Canada.	
	£A'000.	£Stg.'000.	£'000.(a)	£'000.(b)	£'000.(a)	£'000.

DEBT.

Commonwealth—						
War (1914-18)	70,349	7,534	..	..	..	77,883
War (1939-45)	944,190	5,655	..	..	..	949,845
Works and other purposes	364,035	62,631	77,840	18,376	2,722	525,604
Total	1,378,574	75,820	77,840	18,376	2,722	1,553,362
States	2,244,605	267,105	33,194	..	..	2,544,904
Grand Total	3,623,179	342,925	111,034	18,376	2,722	4,098,236

ANNUAL INTEREST PAYABLE.

Commonwealth	43,556	2,979	3,562	750	109	50,956
States	93,253	9,833	1,435	..	..	104,521
Grand Total	136,809	12,812	4,997	750	109	155,477

(a) £ payable in dollars which have been arbitrarily converted to £ at the rate of \$4.8665 to £1.
(b) Loan raised in Switzerland has been converted to £ at the rate of 1,000 Swiss francs to £102 1s. 10d. as provided in Loan Agreement.

§ 4. Commonwealth Loan Raisings.

Loans Raised, p. 868.—Particulars of loans raised by the Commonwealth between 1st July, 1959, and 30th June, 1960, are given in the following table.

COMMONWEALTH LOANS RAISED, 1959-60.(a)

Month of Raising.	Where Raised.	Amount Invited.	Amount Subscribed.	Rate of Interest. (b)	Year of Maturity.	Purpose.
		£'000.	£'000.	%		
1959-60—						
September, 1959 ..	Australia	50,000	{ 12,993 6,698 38,878	{ 4 4½ 5	{ 1962 1968 1979	{ State purposes, £58,557,000 Advances for housing, £12,000
September, 1959 ..	Australia	194,786	{ 35,487 35,531 69,072	{ 4½ 4½ 4-5	{ 1962 1968 1966	{ Conversion
September, 1959 ..	New York	5,137	{ c 8,605 5,137	{ 4-5 5½	{ 1979 1966	{ Advances for housing, £5,137,000
February, 1960 ..	Australia	45,000	{ 5,989 16,799	{ 4 4½	{ 1963 1969	{ State purposes, £40,291,000 Advances for housing,
February, 1960 ..	London	12,000	{ 17,528 12,000	{ 5 5½	{ 1981 1980	{ £25,000 Advances for housing
March, 1960 ..	Switzerland	6,125	6,125	4½	1970-75	Proceeds of loans raised in Switzerland
April, 1960 ..	New York	5,137	5,137	5½	1980	State purposes, £4,295,000 Advances for housing, £842,000
May, 1960 ..	Australia	25,000	{ 1,794 10,563 9,258	{ 4 4½ 5	{ 1963 1969 1981	{ State purposes, £21,606,000 Advances for housing, £9,000
May, 1960 ..	Australia	100,848	{ 36,418 15,030 24,105	{ 4 4½ 5	{ 1963 1969 1981	{ Conversion
June, 1960 ..	Australia	55,000	{ c 2,270 6,000 9,000 40,000	{ 4-5 4 4½ 5	{ 1967 1963 1969 1981	{ War, Repatriation and Rehabilitation, £4,418,000 Advances for housing, £331,000 Works, £20,000,000 State purposes, £30,251,000

(a) In addition, during 1959-60, \$4,160,000 and \$6,240,000 respectively were raised in New York for Qantas Empire Airways.

(b) Australian loans bearing interest at 5 per cent. were issued at par and those at other rates were issued at prices ranging from par to £99 5s. 0d. The London cash loan raised in 1959-60 was issued at £99. The New York loans in 1959-60 were issued at £97 and £97 10s.

(c) Special Bonds.

SPECIAL BONDS ISSUED, 1959-60.

Date of Raising.	Where Raised.	Amount Subscribed.	Rate of Interest.	Year of Maturity.	Price of Issue.	Purpose.
		£'000	%		£ s. d.	
Special Series "B" Bonds 1.7.59 to 1.2.60	Australia	14,704	{ 4 4½ 5	{ 1961 1963 1966	100	{ State purposes, £10,989,000 Advances for housing, £2,156,000 Redemption of Series "A" Special Bonds, £1,559,000
Special Series "C" Bonds	Australia	11,473	{ 4 4½ 5	{ 1963 1964 1967	100	{ War purposes, £1,408,000 State purposes, £8,410,000 Redemption of Series "A" and "B" Special Bonds, £1,655,000

In addition, amounts of £8,605,000 and £2,270,000 were converted into Series "B" and Series "C" Special Bonds in connection with Conversion Loans Nos. 119 and 122 raised in September, 1959 and May, 1960 respectively.

CHAPTER XXIII.—PASTORAL PRODUCTION.

Livestock Numbers, p. 951.—The following table shows, for each State, the numbers of livestock at 31st March, 1960.

LIVESTOCK NUMBERS, 31st MARCH, 1960.(a)

('000.)

—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Horses ..	204	(b)	234	30	41	11	40	1	(b)
Dairy Cattle ..	1,278	1,678	1,254	240	217	207	..	3	4,877
Beef Cattle ..	2,563	946	5,745	260	813	168	1,130	8	11,633
Sheep ..	71,000	26,594	23,321	14,025	16,412	3,494	13	299	155,158
Pigs ..	399	285	429	109	131	67	4	..	1,424

(a) Preliminary, subject to revision.

(b) Not yet available.

Production of Meat, pp. 961, 965, and 997.—The following table shows for each State the production of meat during 1959–60.

PRODUCTION OF MEAT, 1959-60.(a)

('000 Tons Bone-in Weight.)

—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Beef and Veal ..	221.9	163.7	271.6	34.0	46.0	23.2	5.0	2.0	767.4
Mutton and Lamb	181.2	219.0	33.8	57.9	42.7	20.7	0.1	1.3	556.7
Total Meat (incl. Pigmeats) ..	429.9	406.1	332.4	101.4	98.3	49.4	5.2	3.4	1,426.1

(a) Subject to revision.

CHAPTER XXIV. FARMYARD, DAIRY AND BEE PRODUCTS.

Principal Farmyard and Dairy Products, pp. 982, and 997.—Particulars of the total production of these products in each State during 1959–60 are shown below:—

PRINCIPAL FARMYARD AND DAIRY PRODUCTS, 1959-60.(a)

—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Total Whole Milk (('000 gals.)	347,837	603,127	249,077	77,745	58,610	71,205	960	1,408,561
Butter(b) ..	(tons) 42,766	89,900	39,244	6,146	7,478	11,965	4	197,503
Cheese(b) ..	(tons) 4,348	19,085	8,462	10,911	1,438	370	..	44,614
Pigmeats, ..	(tons) 26,841	23,408	26,969	9,475	9,623	5,444	270	102,030

(a) Subject to revision.

(b) Factory and farm production.

CHAPTER XXVII.—MINERAL INDUSTRY.

§ 3. Mineral Production.

Quantity and Value of Production, pp. 1049-51.—In the table hereunder particulars are given of the quantity and value of production in Australia of the principal minerals during the year 1959:—

MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA, 1959.(a)

METALLIC MINERALS.

Year.	Principal Contents of Metallic Minerals Produced.							Total Value of Output of Metal Mining.
	Copper.	Gold.	Iron.	Lead.	Silver.	Tin.	Zinc.	
	Tons.	Fine oz.	'000 tons.	Tons.	'000 fine oz.	Tons.	Tons.	£'000.
1959	94,699	1,085,119	2,706	316,294	15,076	2,350	248,778	76,709

NON-METALLIC AND FUEL MINERALS.

Year.	Quantities Produced.						Total Value of Output of Non-metal and Fuel Mining.
	Coal.		Gypsum.	Limestone. (b)	Mica.	Salt.	
	Black.	Brown.					
1959	'000 tons. 20,298	'000 tons. 13,035	Tons. 516,791	'000 tons. 5,314	lb. 174,785	Tons. 454,863	£'000. 66,296

(a) Subject to revision.

(b) Excludes limestone used as a construction material.

§ 4. Gold, § 5. Lead, Silver, Zinc, § 6. Copper, § 7. Tin,
pp. 1051, 1059, 1064 and 1067.

Smelter and refinery production of the principal metals in Australia during the year 1959 is shown below.

SMELTER AND REFINERY PRODUCTION OF PRINCIPAL METALS: AUSTRALIA, 1959.

Year.	Refined Gold.	Refined Silver. (a)	Refined Lead. (a)	Lead Content of Lead Bullion Produced for Export. (a)	Refined Zinc. (a)	Refined Copper. (a)	Refined Tin. (a)
1959	'000 fine oz. 1,209	'000 fine oz. 7,856	Tons. 185,806	Tons. 50,310	Tons. 116,454	Tons. 51,925	Tons. 2,221

(a) Source: Bureau of Mineral Resources.

The figures below indicate, respectively, the number and page of the Official Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given. For possible revisions, however, issues immediately following the one referred to should also be consulted.

SUBJECT.	OFFICIAL YEAR BOOK No.	PAGE.
Aboriginal Population	17	951
Aborigines, Australian, Former Numbers and Distribution of	23	687
" " of Australia	3	158
Administrative Government	12	924
Advances to Settlers	12	383
Advisory Council of Science and Industry	11	1195
Aeronautical Telecommunications	44	422
Agricultural and Stock Departments (Conspectus)	14	1180
" " Colleges and Experimental Farms	11	393
Air Defence, Development	18	610
Animal and Vegetable Diseases and Pests Acts (Conspectus)	14	1066
Apprenticeship Legislation	16	602
" " " " " "	23	767
Australian Capital Territory (<i>See</i> "Canberra", "Federal Capital" and "Seat of Government").		
" " Capital Territory (Map)	39	367
" " Metal Exchange	12	471
" " Population Mortality, Census of 1933	29	928
" " Services, 1939-45 War (Enlistments, Casualties, Decora- tions, etc.)	37	1155
" " Troops, 1914-18 War (Enlistments, Casualties, Decora- tions, etc.)	16	628
Basic Wage Judgment, 1937	30	564
Board of Trade Advisory Committee, Report on Commercial Intelli- gence	1	518
Building Stones of Australia	9	446
" " Queensland	12	89
Canberra, Past and Present (<i>See also</i> "Federal Capital" and "Seat of Government")	24	454
Cancer in Australia, 1881 to 1910	5	230
Cattle: Distribution of Numbers, 31st March, 1955 (Maps)	43	909-10
Census and Statistics Act of 1905 (Text)	1	8
Censuses, Early	15	1083
Chemistry, South Australian Department of	14	1064
Chinese in Australia	18	951
Climate, Changes of	7	56
Climatology, Bulletins of	34	11
Clothing and Food Rationing (1939-45 War)	36	1084

SUBJECT.	OFFICIAL YEAR BOOK No.	PAGE.
Coal Mining, History of	3	515
Commercial and Industrial Bureau of the Board of Trade	17	1037
Commonwealth Advisory Council on Nutrition	32	222
" Bank	11	815
" Bureau of Census and Statistics, Creation of	1	11
" Department of Fisheries	14	333
" Disposals Commission	39	1289
" Government Shipping and Shipbuilding Activities	22	256
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